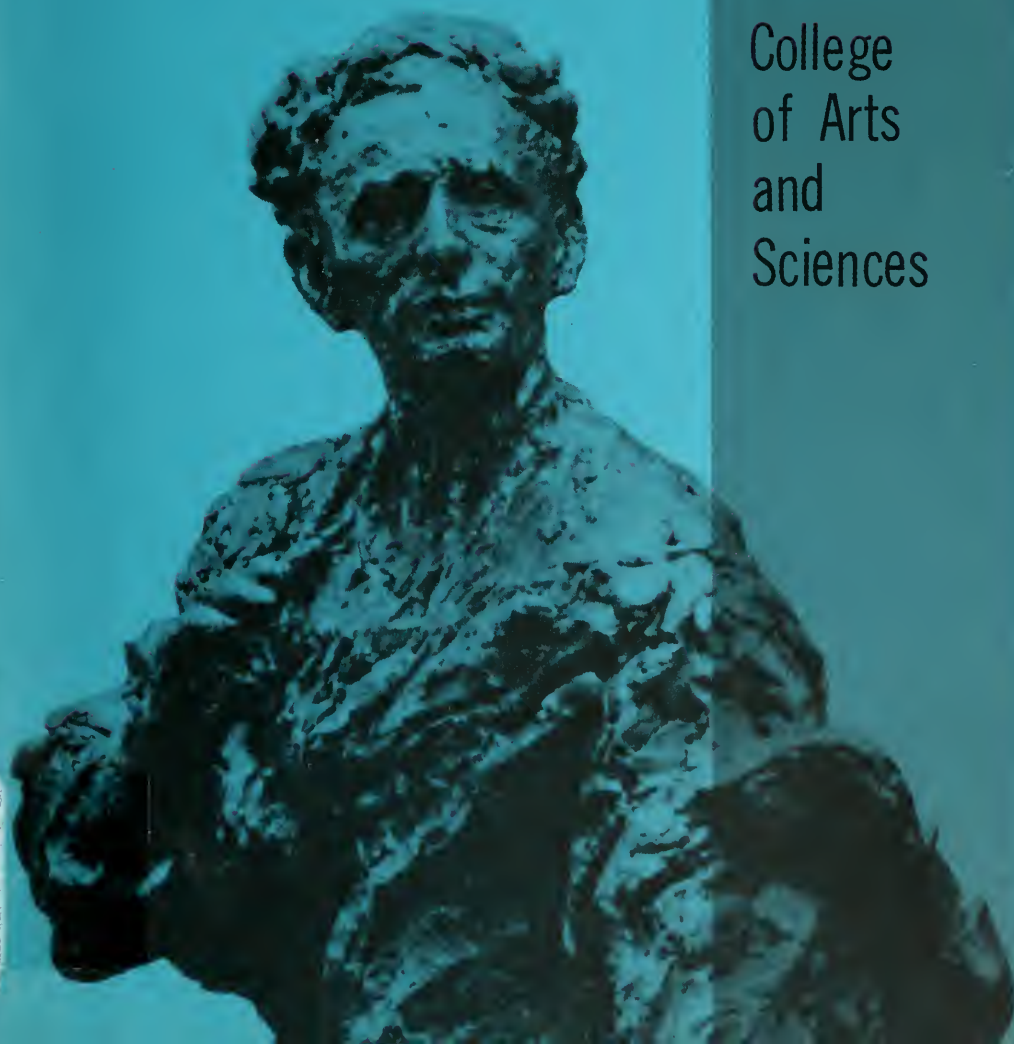


College
of Arts
and
Sciences



COVER: *The statue of Louis Dembitz Brandeis on the Brandeis University campus executed by Robert Berks under a commission from Lawrence A. Wien of New York. Dedicated by Chief Justice Earl Warren on the 100th anniversary of the birth of Brandeis, November 1956.*

This publication is corrected as of July 1, 1964.

Vol. XIV No. 1 September 1964

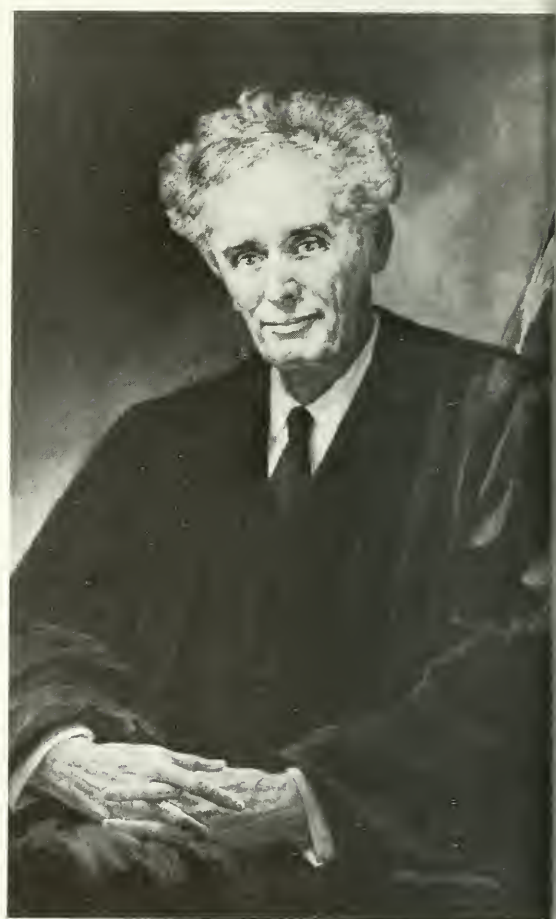
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Brandeis University

College
of
Arts
and
Sciences
1964/1965

W A L T H A M , M A S S A C H U S E T T S



“It must always be rich in goals and ideals, seemingly attainable but beyond immediate reach. . . .

“It must become truly a seat of learning where research is pursued, books written, and the creative instinct is aroused, encouraged, and developed in its faculty and students.

“It must ever be mindful that education is a precious treasure transmitted—a sacred trust to be held; used, and enjoyed, and if possible strengthened, then passed on to others upon the same trust.”

—from the writings of
LOUIS DEMBITZ BRANDEIS (1856-1941)
on the goals of a university.



“Brandeis will be an institution of quality, where the integrity of learning, of research, of writing, of teaching, will not be compromised. An institution bearing the name of Justice Brandeis must be dedicated to conscientiousness in research and to honesty in the exploration of truth to its innermost parts.

“Brandeis University will be a school of the spirit—a school in which the temper and climate of the mind will take precedence over the acquisition of skills, and the development of techniques.

“Brandeis will be a dwelling place of permanent values—those few unchanging values of beauty, of righteousness, of freedom, which man has ever sought to attain.

“Brandeis will offer its opportunities of learning to all. Neither student body nor faculty will ever be chosen on the basis of population proportions, whether ethnic or religious or economic.”

—DR. ABRAM L. SACHAR, at the ceremonies inaugurating
Brandeis University, October 8, 1948





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Academic Calendar 1964-1965

Fall Term

Thursday	September 17	New students arrive on campus. President's banquet.
Friday	September 18	8:30 a.m. New students register. Foreign language examinations.
Sunday	September 20	Returning students arrive on campus.
Monday	September 21	No University exercises.
Tuesday	September 22	A.M. New students see faculty advisers. Upperclassmen register and consult faculty advisers. P.M. Freshmen and Upperclassmen enroll in sections.
Wednesday	September 23	{ Opening days of instruction in all courses. Unless noted otherwise, section meetings will not take place until the following week.
Thursday	September 24	
Monday	September 28	No University exercises.
Wednesday	October 7	9:00 a.m.—1:00 p.m. Freshmen file final study cards.
Thursday	October 8	9:00 a.m.—1:00 p.m. Upperclassmen file final study cards. Last day for course changes without fee.
Friday	October 23	Last day for course changes with fee. No student may enter a course in the Fall term 1964-65 after this date.
Wednesday	November 4	Grades which were incomplete in June 1964 due.
Wednesday	November 11	No University exercises.
Wednesday	November 18	Midterm grades due.
Thursday	November 26	{ No University exercises.
Friday	November 27	
Friday	December 18	Winter recess begins after last class.
Monday	January 4, 1965	Classes resume.
Friday	January 15	Spring term study cards due.
Monday	January 18	No University exercises.
Tuesday	January 19	{ Mid-Year Examinations.
Friday	January 29	



Spring Term

Wednesday February 3
Tuesday February 16
Wednesday February 17

Monday February 22
Wednesday March 3

Wednesday March 17

Wednesday March 31
Wednesday April 14

Thursday April 15
Monday April 26
Monday May 24
Friday June 4
Saturday June 12
Sunday June 13

Classes resume.

Freshmen Spring term study cards due.

Upperclassmen Spring term study cards due.

Last day for course changes without fee.

No University exercises.

Last day for course changes with fee.

No student may enter a course in the Spring term 1964-65 after this date.

Grades which were incomplete at the end of Fall term due.

Cumulative Spring midterm grades due.

Freshmen plans of study and all preregistration cards due.

Spring recess begins after last class.

Classes resume.

} Final examinations.

Baccalaureate.

Commencement.



Brandeis University



Brandeis University has set itself to develop the whole man, the sensitive, cultured, open-minded citizen who grounds his thinking in facts, who is intellectually and spiritually aware, who believes that life is significant, and who is concerned about society and the role he will play in it.

The University will not give priority to the molding of vocational skills, nor to developing specialized interests at the expense of a solid general background. This does not mean that what is termed practical or useful is to be ignored; Brandeis merely seeks to avoid specialization unrelated to our basic heritage—its humanities, its social sciences, its sciences and its creative arts. For otherwise, fragmentized men, with the compartmentalized point of view that has been the bane of contemporary life, are created.

A realistic educational system must offer adequate opportunity for personal fulfillment. Education at Brandeis encourages this drive for personal fulfillment, but only within the framework of social responsibility. Thus Brandeis seeks to educate men and women who will be practical enough to cope with the problems of a technological civilization, yet mellowed by the values of a long historical heritage; self-sufficient to the point of intellectual independence, yet fully prepared to assume the responsibilities society imposes.

Brandeis University came into being because of the desire of American Jewry to make a corporate contribution to higher education in the tradition of the great American secular universities that have stemmed from denominational generosity. By choosing its faculty on the basis of capacity and creativity, and its students according to the criteria of academic merit and promise, the University hopes to create an environment which may cause the pursuit of learning to issue in wisdom.



This initial and unwavering commitment to excellence has earned early acceptance of the University in academic circles and among those who participate, at the highest levels, in support of the nation's most promising colleges and universities. Full accreditation came to Brandeis at the earliest possible moment. In 1961, Phi Beta Kappa granted permission for a chapter (Mu of Massachusetts) to be formed on its campus. Most recently the Ford Foundation assessed the record and potential of the University and buttressed their belief in its future with a major challenge grant to Brandeis on a matching basis.

University Organization

Brandeis is one of the few small universities in the United States. The academic programs, described below, are each limited in size to encourage quality and integrity of intellectual achievement. There is constant interaction between college, graduate and professional schools, and institutes. The accomplishments of one set automatic pace for the others, and the interchange benefits all, creating an intellectual environment of decided vitality. Additionally, the organic richness of the extensive research activity fertilizes the undergraduate root of the institution no less than the graduate and professional programs.

The College of Arts and Sciences

In keeping with its general objectives, Brandeis attaches the greatest of importance to the liberal arts curriculum. It is designed to offer full academic opportunities for those students planning to pursue graduate or professional

studies as well as those whose educational objective is the baccalaureate degree.

The College of Arts and Sciences offers instruction in the Schools of Creative Arts, Humanities, Social Science and Science. Regularly matriculated students pursuing courses of instruction under the Faculty of Arts and Sciences may, upon satisfactory completion of the first year, continue as candidates for the Bachelor of Arts degree.

Established in 1948, full accreditation was received from the New England Association of Colleges and Secondary Schools in 1953.

The Graduate School of Arts and Sciences

The Graduate School is designed to educate broadly as it trains professionally. It is sensitive to the fact that as specialization increases within society, the traditional boundaries between the Ph.D. and advanced professional degrees are gradually losing their distinctions. It seeks to achieve a spirit of informality, without sacrificing work disciplines.

The Graduate School of Arts and Sciences offers courses of study leading to the master's and doctor's degrees. Graduate areas include Anthropology, Astro-Physics, Biochemistry, Biology, Biophysics, Chemistry, Contemporary Jewish Studies, English and American Literature, History of American Civilization, History of Ideas, Mathematics, Mediterranean Studies, Music, Near Eastern and Judaic Studies, Philosophy, Physics, Psychology, and Sociology.

(Full information is available in the catalog of the Graduate School of Arts and Sciences).

The Florence Heller Graduate School for Advanced Studies in Social Welfare

The Florence Heller Graduate School for Advanced Studies in Social Welfare, made possible through the generous grant of Mrs. Florence Heller of Chicago, was established at Brandeis University in 1959. Applicants are required to have earned the degree of Master of Social Work at an accredited school and, preferably, to have had experience on a professional level. The program of study leads to the doctorate and is designed to qualify graduates for administrative and consultative roles in established areas of social work endeavor, as well as newly emergent areas such as international social work, inter-group organization, labor, industry and government. Special emphasis is placed upon community organization, social work administration, and research, making full use of relevant principles and experiences from the social sciences.

(Full information is available in the catalog of the Heller Graduate School).

Related Academic Programs

Wien International Scholarship and Fellowship Program

The Wien International Scholarship Program, created in 1958 by the Lawrence A. and Mae Wien Fund, is designed to further international understanding, to provide foreign students with opportunities for study in the United States, and to enrich the intellectual and cultural life of the Brandeis campus.

The Program permits the University to offer scholarships and fellowships covering tuition, room, board and, in rare instances, travel costs, to students from foreign nations. Awards, made for the academic year, may be renewed for a subsequent year. All applicants must possess a thorough knowledge of the English language.

All Wien Scholars study within the regularly organized curriculum, which is supplemented by special seminars, conferences and field trips, planned to provide the opportunity to obtain a broad understanding of most facets of American Society.

The Wien Program endorses the participation of accepted students in accredited summer orientation programs, especially in the Boston Area International Seminar, a cooperative effort by Boston College, Brandeis, Boston University, Harvard University, and Massachusetts Institute of Technology. Wien Scholars are also encouraged to participate in the Homestay Program of the Experiment in International Living and in similar authorized programs which are designed to make the foreign student at home in his new environment.

Jacob Hiatt Institute in Israel

The University conducts, with the co-operation and support of the United States Department of State, an annual one-semester Institute in Israel. Open to college and university juniors and selected seniors who have completed introductory courses in political science, sociology, or social psychology, the Institute offers instruction in modern Jewish and Israel history; Israel political and social institutions and the Hebrew language.

The Institute, which is located in Jerusalem and directed by Brandeis faculty members, is unique in that it emphasizes first-hand investigation. Formal classroom work is supplemented by seminars with persons prominent in Israel's political and economic life, and fieldwork is conducted at such on-the-spot locations as factories, seaports, labor councils, agricultural settlements, Arab and Christian communities, army training centers and mineralogical exploration points in the Negev Desert.

Enrollment in the Hiatt Institute is also open to a limited number of qualified students from other colleges and universities.

The Sarah and Gersh Lemberg Nursery School

The Lemberg laboratory-nursery school was established, as a unit of the Psychology department, in the fall of 1961 through the generosity of Samuel and Lucille Lemberg. Both indoor and outdoor facilities and equipment accommodate some 30 youngsters. Brandeis students enrolled in the education sequence, and students from Tufts University and Wheelock College, serve as practice teachers.

Rubin Anthropology Program

A grant from the Samuel Rubin Foundation led to an intensive and diversified program of training and field work in foreign lands, and also provided for an undergraduate program which included summer field work training for honors candidates and a fully subsidized scholarship program.

Rosenstiel Biochemistry Program

The graduate and research program in biochemistry is supported by a grant from the Dorothy H. and Lewis Rosenstiel Foundation made "in support of research in the natural sciences with primary emphasis in biochemistry."

The Rosenstiel Biochemistry Program, established in 1957, includes more than 70 graduate and postgraduate research fellows. Among the agencies co-operating in sponsoring research are the National Science Foundation, National Institutes of Health, Office of Naval Research, American Cancer Society, Atomic Energy Commission, the Eli Lilly Company, Howard Hughes Foundation, Rockefeller Foundation, National Dental Institute, and the Damon Runyon Memorial Fund.

A classroom session in the nursery school.



Professorships and Lectureships

Jacob Ziskind Professorships

To implement its philosophy of education, the University brings to the campus distinguished academic figures from sister universities both in the United States and abroad who serve as Ziskind Visiting Professors. This program, made possible by the Jacob Ziskind Endowment Fund, enables the University to supplement its regular teaching staff with the presence of academicians drawn from the major streams of educational thought. Inclusion of distinguished foreign academicians serves to challenge and stimulate faculty and students with the introduction of new concepts and new educational viewpoints, thus strengthening the entire educational process.

Harry B. Helmsley Lecture Series

Established to reduce barriers that separate different races, creeds and nationalities, this annual public lecture series has, since its inauguration, featured leading philosophers, educators, government officials and religious leaders in discussions and seminars that relate to intergroup understanding.

The Martin Weiner Distinguished Lectureships

The income from this endowment fund permits the designation of several Weiner Distinguished Lecturers each year. Lecturers receiving these appointments are selected not only from the academic world, but also include figures drawn from the fields of religion, government, international affairs, letters, science, and the business world. The Weiner Distinguished Lecturers enrich the University's curriculum by participating in regular academic seminars and symposia and, in addition, University convocations and public events.

Stephen S. Wise Memorial Lecture

This annual lecture in memory of Rabbi Stephen S. Wise was established by the late Nathan Straus to bring to the University each year a distinguished representative of the liberalism that was basic to the outlook of Dr. Wise.

Ludwig Lewisohn Memorial Lectures

Sponsored by the students of the University in tribute to their late teacher, this annual series has presented noted literary figures drawn from the fields of criticism and creative writing.

Abba Eban Lectureship

Through the generosity of the late Nathan Straus an endowment has been named for Israel's former ambassador to the United States and representative in the United Nations. The program permits an annual lecture by a statesman or scholar on some phase of Middle Eastern affairs.



George and Charlotte Fine Endowment Fund

Created to supplement chamber music programs given under the auspices and direction of the Department of Music, the Fine Endowment Fund makes possible the engaging of visiting artists to perform with members of the Brandeis faculty.

Special Academic Programs

Poses Institute of Fine Arts

Established by Jack I. and Lillian Poses, to supplement the University's curriculum program in the Fine Arts, by:

1) Exhibiting paintings, sculpture, artifacts and other expressions of contemporary and traditional art in the University's museum and many gallery halls; 2) Sponsoring lecture series and symposia with notable art historians, scholars and practitioners of the Fine Arts, for the widest possible benefit of the community, academic and otherwise; 3) Establishing, as an ongoing event, annual institutes, organized around basic issues in the arts and contemporary life; 4) A program of artists-in-residence, reflecting the growing sense of responsibility for encouraging the artist-at-work and for the vitalization of academic programs in the Fine Arts; 5) Providing funds for commissions and grants-in-aid for young artists of talent who have completed the formal years of their education and are seeking to establish themselves as practicing artists.



Philip W. Lown Institute of Advanced Judaic Studies

A grant has enabled the University to establish a center of independent research in all areas of Judaic Studies.

In addition to members of the Brandeis faculty, scholars from other universities in the United States and abroad are invited to read papers and to participate in the Lown Institute's monthly colloquia. Fellowships are offered to scholars working on projects commissioned or approved by the Institute. Public lectures deal with topics of wider interest.

The Institute publishes the papers read at its seminars and works of research produced under its auspices in a "Texts and Studies" Series (Harvard University Press).

Philip W. Lown Institute of Contemporary Jewish Studies

An additional grant from Philip W. Lown has established a center for training men and women who are concerned with contemporary Jewish scholarship or with a career in institutional Jewish service. The Institute cooperates with the regular departments of the University and with the Florence Heller Graduate School for Advanced Studies in Social Welfare. It is administered by a director and an interdisciplinary faculty committee. A limited number of fellowships are available to help subsidize these studies. The Institute is geared at the outset for a Master of Arts degree.

The Morse Communication Research Center

The Communication Research Center of the University is engaged in a program of sponsored research studies, institutes and publications which explore and evaluate many aspects of communications in our society. Essential to these ongoing programs is the simultaneous development of basic resource material. This involves the study of the impact of communications upon many aspects of contemporary life—social structures, political organizations, international relations, education and the formation of individual and group attitudes.

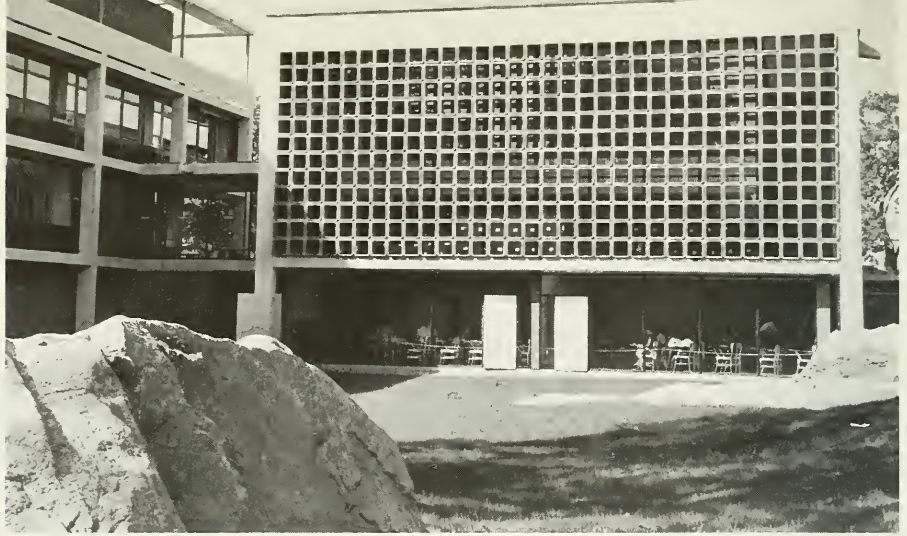
Among the programs undertaken, or in progress, are an annual quantitative study of the programming content of educational television stations in the United States, a multi-national mass communication study program for representatives of newly emerging nations, in cooperation with the United States Department of State, and a national conference on the role and economics of educational television in cooperation with the American Academy of Arts and Sciences, with the support of the United States Department of Health, Education and Welfare. Certain other specific long range research projects related to known communications needs are now being planned.

The Center is primarily underwritten by a major grant from Lester S. and Alfred L. Morse of Boston.

Peace Corps Training Program

Under a contract with the United States Peace Corps, Brandeis University will train 50 volunteers for service in Bolivia this fall. Training on the Brandeis campus will include preparation for work in areas of public health, community development and university education.





Community Services

Lowell Institute Cooperative Broadcasting Council

Brandeis University is a member of the Lowell Institute Cooperative Broadcasting Council, which sponsors the educational radio station WGBH-FM and Boston's pioneer educational TV station WGBH-TV, Channel 2. Brandeis, along with Boston College, the Boston Symphony Orchestra, Boston University, Harvard University, Lowell Institute, MIT, the Museum of Fine Arts, the New England Conservatory of Music, Northeastern University, and Tufts University, makes its teaching facilities available for use by WGBH-FM and its television affiliate, WGBH-TV. As a member of the Lowell Institute, which develops the programming for both stations, the University, through a Ford Foundation Grant, extends its educational facilities and concepts beyond the confines of the campus, into the communities served by the 40 stations of the National Educational Television Network. A significant program of the University's educational broadcasting was "The Prospects of Mankind," organized by the late Mrs. Eleanor Roosevelt, which appeared on both educational and commercial TV stations, in the United States and abroad. This program was sponsored by the National Educational Television Center, and was produced by WGBH-TV, in cooperation with Brandeis University.

Brandeis University Creative Arts Awards

The establishment of the Brandeis University Creative Arts Awards was announced by the University during 1956. Awards are presented annually in the areas of Theatre Arts, Music, Poetry and Painting or Sculpture. In each of these fields of the arts, two types of awards are bestowed. Achievement medals are conferred upon successful artists for outstanding accomplishments during the year; and grants-in-aid are awarded to young talented persons, in recognition of their creative ability and encouragement

for future study and training. Special juries are appointed annually in each of the fields to judge the competition.

Office of Adult Education

To provide adults with the opportunity to pursue courses of instruction in areas of particular interest to them, the Office of Adult Education sponsors daytime seminars for women, and evening and Sunday-morning lecture courses, all directed by members of the Brandeis faculty, and all consistent with the quality of Brandeis academic offerings. In addition, the office plans and presents a variety of special public lecture programs throughout the academic year.

Summer Institutes for Adults

The Summer Institutes for Adults seek to broaden the University's academic scope by offering a unique residence program to adults from all sections of the country. Participants may spend either one or two weeks of intensive, uninterrupted study, directed by Brandeis faculty members and supplemented by guest lecturers, on topics broadly concerned with the problems and trends of contemporary civilization.

Themis House

Through the generosity of Mr. and Mrs. Boice Gross, Brandeis has acquired the use of a large estate—within a few minutes drive of the campus—consisting of nine acres of land and an attractive English Tudor mansion where it is possible to house, feed and accommodate 30-40 persons. "Themis House" is the setting for significant academic institutes, conferences and training programs sponsored by the University. In exceptional instances, it is made available to cooperating educational or civic agencies.

The Computer Center

Established under an initial grant from the National Science Foundation, the University's computer center employs an IBM 1620 machine in work supporting research in the social and life sciences.

Brandeis Forum Theatre

The University sponsors a summer theatre with a campus-based Equity company performing several major American dramas in an eight-week season. The plays are presented in the outdoor Ullman Amphitheater as an extension of the University's service to the greater community.

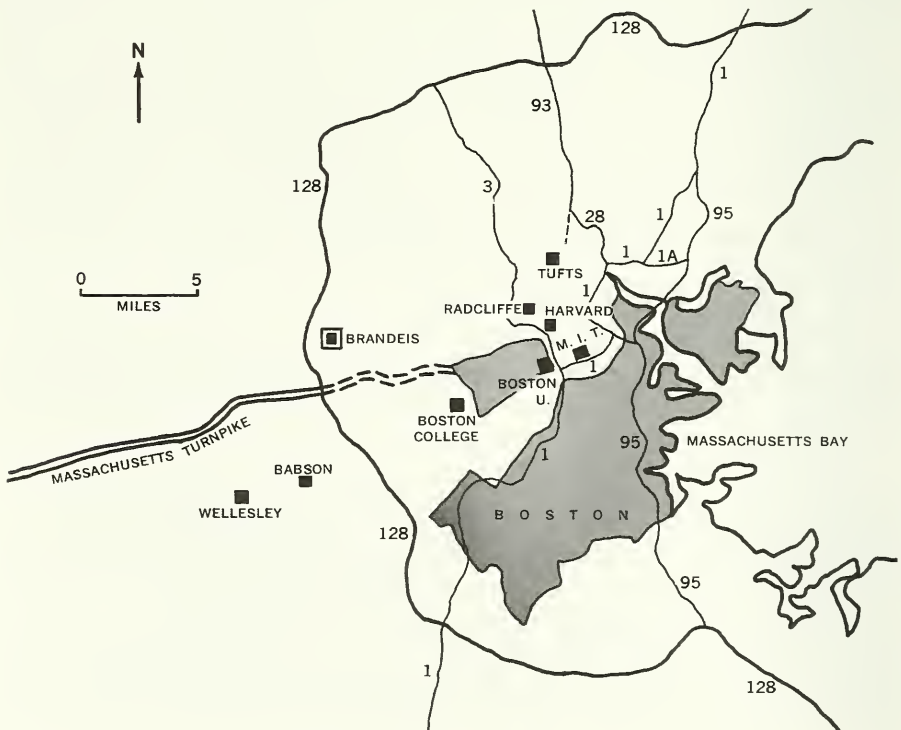
A unique facet of the Brandeis Forum Theatre is the weekly "*Critics' Forum*." Distinguished critics, educators and leading members of the community serve as a panel to discuss and evaluate the play of the week and its relation to the major issue in contemporary life it was selected to illustrate.

General Description

Brandeis University, on the southwest outskirts of Waltham, Massachusetts, is ten miles west of Boston, adjacent to Wellesley and near historic Lexington and Concord.

From the eastern Charles River boundary, University grounds sweep upward to New England's famed Boston Rock, where Governor Winthrop and his Massachusetts Colony explorers first surveyed the region that is today Greater Boston.

By automobile, the campus may be reached from Boston on Commonwealth Avenue (Route 30); from Exit 51 of Boston's encircling Route 128; or from Exit 14 of the east-west Massachusetts Turnpike. Road signs on Route 30, just west of the Route 128 overpass, point to Brandeis University. Watertown cars run from Park Street subway stations in Boston to Newton Corner, where a Roberts bus may be taken to the campus on South Street in Waltham. There is also train service on the Boston and Maine Railroad (Fitchburg line) between North Station in Boston and the Roberts Station on the edge of the Brandeis campus, and from nearby Cambridge.





Center for the University's Administrative Offices

Academic and Administrative Buildings

Administration Center

Overlooking the main entrance to the campus, the Brandeis University Administration Center houses the offices of the president, deans, student administration, university administration and the National Women's Committee. Conference room facilities serve the Board of Trustees, faculty and administrative staff. The Center comprises Bernstein-Marcus Administration Center, Gryzmish Academic Center and the Julius and Matilda Irving Presidential Enclave.

Brown Social Science Center

Adjacent to the library, the Brown Social Science Center includes three structures.

The central building houses the Sociology, Anthropology, Psychology and Economics Departments. It contains classrooms, seminar rooms, faculty offices, laboratories and a small anthropology museum. Glass walls overlook an attractively landscaped quadrangle which the Social Science Center encloses.

Schwartz Hall houses a 300-seat lecture auditorium, classrooms and a spacious lounge. Millions of viewers across the nation have watched television programs recorded in the main auditorium, specially equipped for use as a television studio. The lounge contains a permanent exhibit of Oceanic Art and Ethnographic objects donated to the University by Mrs. Helen S. Slosberg.

Lemberg Hall is the home of the Lemberg Nursery School, operated by the Department of Psychology. Classrooms with specially constructed walls of one-way glass enable students to observe youngsters in the nursery school and to record their development from the observation room. Lemberg Hall also houses the Psychological Counseling Center.

Brown Terrarium

Brown Terrarium, a completely equipped experimental greenhouse, located between the Faculty Center and Sydemann Hall, provides facilities for botanical research.

Faculty Center

On the south campus is the Faculty Center, containing club facilities, lounges, the faculty dining room, a private dining room for faculty meetings, and apartments for visiting faculty and lecturers.

Ford Hall

Near the central campus, Ford Hall contains classrooms, laboratories, faculty offices and Seifer Hall, an auditorium seating 500, which is used for lectures, large student meetings, and major conferences.

Friedland Research Center

Joined to Kalman Science Center by an overhead corridor of glass and stainless steel, Friedland Research Center provides four stories of modern laboratories which house research in biochemistry and related life sciences.



The Faculty Center



Goldfarb Library Building

Near the center of the campus, Goldfarb Library Building is a brick, limestone and glass structure with an ultimate capacity of 750,000 volumes. On the periphery of its open stacks are student study carrels and faculty studies. Seminar rooms are provided for those courses requiring intimate and immediate access to library resources in specific research and reference areas. The library also contains audio-visual aids, specialized reading rooms, typing rooms and lounge facilities. Works of art from the University collection are on constant display in the many galleries of the building.

Golding Judaic Center

Overlooking the campus from the northeast corner of the Academic Quadrangle, Golding Judaic Center contains classrooms devoted to the study of the Near East, Judaics and related subjects. Classrooms and faculty offices ring its large, central lecture hall.



Goldman-Schwartz Fine Arts Center

Goldman-Schwartz Art Studios

The Goldman-Schwartz Art Studios provide classrooms, faculty offices and sculpture areas for the Department of Fine Arts and studios for faculty, advanced students and artists-in-residence. Its completion marks a major step in fulfilling the master plan for a unified creative arts enclave extending across the southwest campus.

Hayden Science Court

The Charles and J. Willard Hayden Court, comprising several acres in the central campus area, is the site of present and projected science facilities of the University. This area has been set aside as a memorial to two generous benefactors, whose pioneer gift stimulated the extensive scientific programs of the University.

Kalman Science Center

The University's first structure devoted entirely to science, Kalman Science Center continues to be the key facility in the growth of the University's science facilities. This center contains instructional and research laboratories for the undergraduate School of Science and for the advanced work of the Graduate School of Arts and Sciences.

Old Library Building

Once the University's library, this brick and fieldstone structure on the central campus has been converted to house the bookstore, post office, and provide research accommodations for the Heller Graduate School for Advanced Studies in Social Welfare.

Olin-Sang American Civilization Center

On a hillside overlooking the library and Three Chapel Area, the Olin-Sang American Civilization Center provides unique seminar-classroom halls which include display areas for the placement of original manuscripts and source materials relating to the courses offered. Included are the Diplomatic Studies, Human Rights, Lincoln, Presidential, Washington, Judicial and Legislative Halls. The Shapiro Forum, which is the building's lecture auditorium, is patterned after the United Nations General Assembly hall.

Rabb Graduate Center

A circular lounge, walled in glass, is a unique architectural feature of Rabb Graduate Center. Its main building contains classrooms and offices for the staff of the Graduate School of Arts and Sciences.

Rapaport Treasure Hall

Adjacent to Goldfarb Library Building, and joined to it by a glass-enclosed lobby, Rapaport Treasure Hall is the repository for rare books, incunabula and other library treasures. The upper level serves as the main exhibition area and the lower level stores the University's growing collection and includes a specially constructed vault with provision for the protection of these rare items against the ravages of time, temperature, humidity, fire or theft.



A Lecture in
Rose Art Museum

Rose Art Museum

Located within the Creative Arts enclave, the Rose Art Museum is the focal point for the University's rapidly burgeoning art collection. On permanent display are portions of the noted ceramic collection of Mr. and Mrs. Edward Rose. Major loan exhibitions are placed on display during the academic year as well as selections from the University's permanent collection. The wishing pool on the lower level is both a pleasant setting for quiet reverie and the objective of coin-tossing students before examinations.

Shiffman Humanities Center

Atop a hillside where its glass walls reveal spectacular views of the campus and the country north of Boston, Shiffman Humanities Center employs a new academic concept in educational architecture. Original manuscripts, portraits, and source materials related to courses being offered are displayed in the seminar rooms. The latest in electronic language teaching facilities are employed in the building's language laboratory. Included are the Language and Phonetics, English and American Literature, Classics, Philosophy, Renaissance, Germanic and Asian Studies Halls.

Slosberg Music Center

Recently completed construction doubles the office, classroom and practice room space in Slosberg Music Center at the entrance to campus. It has its own library and a recital hall which seats 250 with carefully designed acoustical treatment. Slosberg Recital Hall is the location for the University's rich program of chamber music concerts and solo performances.

Shiffman Humanities Center



Sydeman Hall

This annex to Ford Hall houses laboratories, classrooms, faculty offices and the mathematics library.

Ullman Amphitheatre

Utilizing a natural bowl below the grape arbor and science buildings, the Amphitheatre has a complete stage with full lighting equipment and orchestra pit, classrooms and faculty offices. It is the present center of theatre activity and is the colorful setting for University convocations and commencements.

Woodruff Hall

Situated in the center of the campus, this white brick building houses the Florence Heller Graduate School for Advanced Studies in Social Welfare.

Athletic Facilities

Memphis Tract

A twenty-six acre area on the east edge of the campus, Memphis Tract contains the Shapiro Athletic Center, Marcus Field, Gordon Field and Rieger Tennis Courts.

Gordon Field

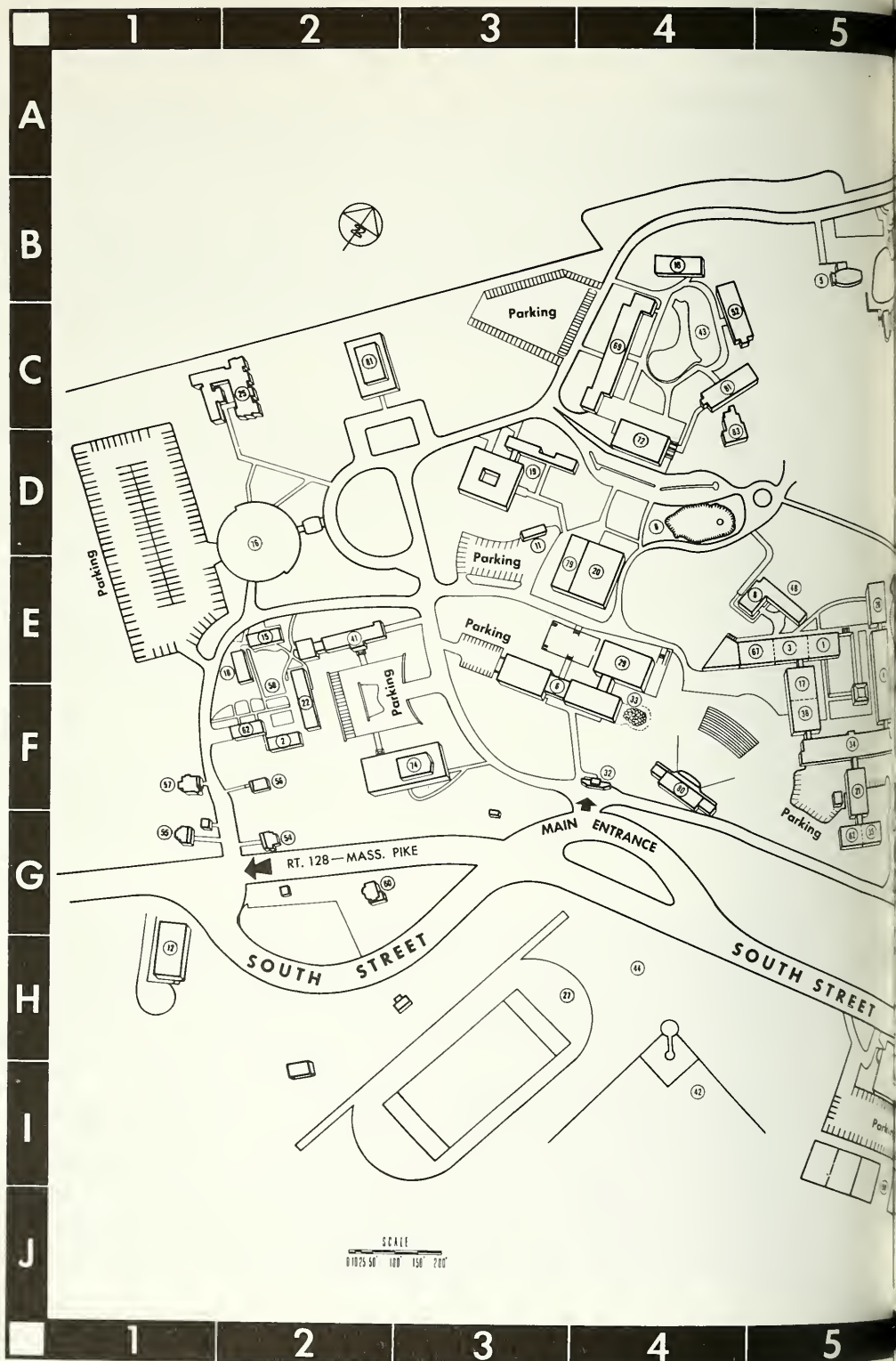
One of the nation's most modern tracks rings Gordon Field where the University's track and field squad plays host to teams from throughout the east. The central area provides playing fields for the University's intramural football teams and specialized accommodations for intercollegiate field events.

Marcus Playing Field

Brandeis' international student body has won respect for its soccer prowess on Marcus Playing Field, which also contains the varsity and practice baseball diamonds and a softball diamond.

Shapiro Athletic Center

Throughout the school year the main gymnasium operates day and night with varsity and intramural competition as well as physical education activities. The gymnasium is also used for public lectures, student dances, and major conferences. In addition, classrooms, offices for the physical education faculty, team, and physiotherapy rooms and dressing rooms are included in Shapiro Athletic Center.



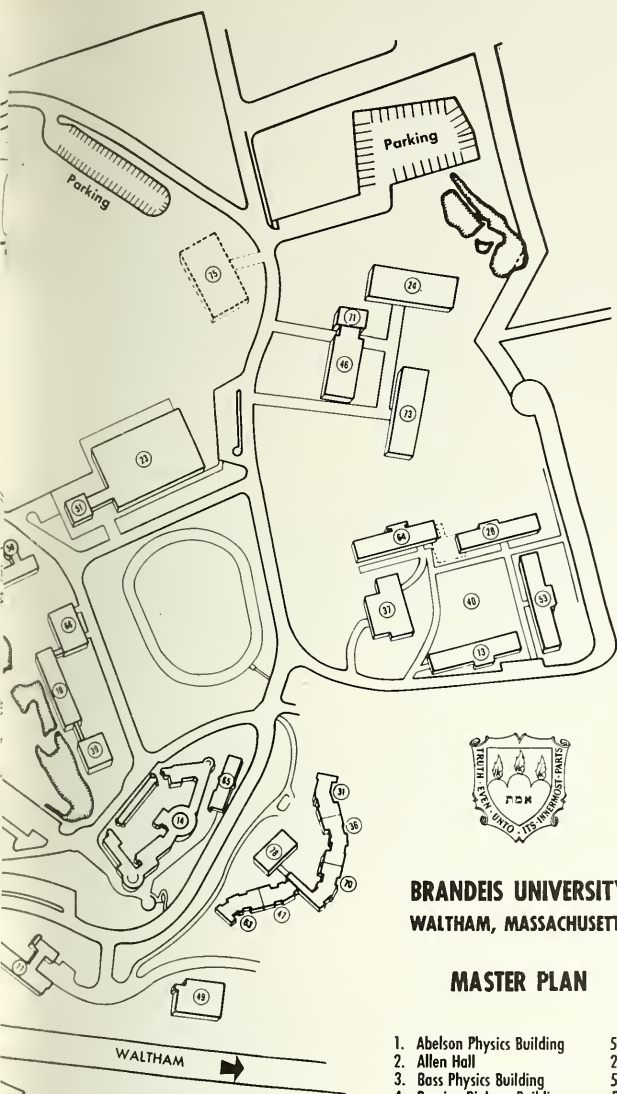
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BRANDEIS UNIVERSITY **WALTHAM, MASSACHUSETTS**

MASTER PLAN

- | | |
|---|-----|
| 1. Abelson Physics Building | 5-E |
| 2. Allen Hall | 2-F |
| 3. Bass Physics Building | 5-E |
| 4. Bassine Biology Building | 5-E |
| 5. Berlin Chapel | 5-B |
| 6. Bernstein-Marcus Administration Center | 3-F |
| 7. Bethlehem Chapel | 5-C |
| 8. Bookstore | 5-E |
| 9. Brandeis Statue | 4-D |
| 10. Brown Social Science Center | 6-F |
| 11. Brown Terrarium | 3-D |
| 12. Buildings and Grounds | 1-H |
| 13. Cable Hall | 8-E |
| 14. Castle | 7-G |
| 15. Danciger Hall | 2-E |

- | | |
|--|-----|
| 16. DeRoy Hall | 4-B |
| 17. Edison Chemistry Building | 5-E |
| 18. Emerman Hall | 2-E |
| 19. Faculty Center | 3-D |
| 20. Ford Hall | 4-E |
| 21. Friedland Science Center | 5-F |
| 22. Fruchtman Hall | 2-F |
| 23. Goldfarb Library | 6-D |
| 24. Golding Judaica Center | 8-C |
| 25. Goldman-Schwartz Fine Arts Center | 2-C |
| 26. Goldsmith Mathematics Building | 5-E |
| 27. Gordon Athletic Field | 3-H |
| 28. Gordon Hall | 8-E |
| 29. Gryzmish Academic Administration Center | 4-E |
| 30. Harlan Chapel | 6-B |
| 31. Hassenfeld House | 7-F |
| 32. Information Booth | 4-F |
| 33. Irving Presidential Enclave | 4-F |
| 34. Kalman Science Building | 5-F |
| 35. Kosaw Biochemistry Building | 5-G |
| 36. Krivoff Hall | 7-G |
| 37. Kutz Hall | 8-E |
| 38. Lecks Chemistry Building | 5-F |
| 39. Lemberg Hall | 6-F |
| 40. Leon Court | 8-E |
| 41. Mailman Hall | 2-E |
| 42. Marcus Playing Field | 4-I |
| 43. Massell Quadrangle | 4-C |
| 44. Memphis Tract | 4-H |
| 45. Mu Sigma Memorial | 5-B |
| 46. Olin-Sang American Civilization Center | 7-C |
| 47. Pomerantz Hall | 7-G |
| 48. Post Office | 5-E |
| 49. Power Plant | 7-H |
| 50. Rabb Graduate Center | 6-E |
| 51. Rapaport Treasure Hall | 6-D |
| 52. Renfield Hall | 4-C |
| 53. Reitman Hall | 8-E |
| 54. Ridgewood 15 | 2-G |
| 55. Ridgewood 20 | 1-G |
| 56. Ridgewood 25 | 2-F |
| 57. Ridgewood 28 | 1-F |
| 58. Ridgewood Quadrangle | 2-E |
| 59. Rieger Tennis Courts | 5-I |
| 60. Roberts Cottage | 2-G |
| 61. Rose Art Center | 2-C |
| 62. Rosen Hall | 2-F |
| 63. Rubenstein Hall | 7-G |
| 64. Scheffres Hall | 8-E |
| 65. Schwartz Hall | 7-F |
| 66. Schwartz Teaching Center | 6-E |
| 67. Segal Physics Building | 5-E |
| 68. Shapiro Athletic Center | 6-I |
| 69. M. Shapiro Hall | 4-C |
| 70. Shapiro Brothers Hall | 7-G |
| 71. Shapiro Forum | 7-C |
| 72. Sherman Student Center | 4-D |
| 73. Shiftman Humanities Center | 8-D |
| 74. Slosberg Music Center | 3-F |
| 75. Social Welfare Center | 7-C |
| 76. Spingold Theatre Arts Center | 2-D |
| 77. Stoneman Infirmary | 6-H |
| 78. Swig Student Center | 7-F |
| 79. Sydemann Hall | 3-E |
| 80. Ullman Amphitheatre | 4-F |
| 81. Usen Hall | 4-C |
| 82. Wolfson-Rosensweig Biochemistry Building | 5-G |
| 83. Woodruff Hall | 4-C |

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Rieger Tennis Courts

The Rieger Tennis Courts are the scene of informal as well as intramural and intercollegiate tennis competition. They are located to the rear of the Shapiro Athletic Center.

Residence Halls

Campus living accommodations consist predominantly of double rooms, some single rooms and larger quarters. Each residence hall has its own lounge or lounges. Modern laundry and other conveniences are available to all students. Each resident student should bring blankets, lamps and such rugs and decorations as are desired. Arrangements for linen and towel service may be made through the University.

East Quadrangle

The most recently completed residence halls on campus are those in the East Quadrangle. These include the Hassenfeld House, Rubenstein Hall, Pomerantz Hall, Krivoff House and Shapiro Brothers Hall. A large central lounge serves all of these buildings, and the entire area is complemented by the Benjamin and Mae Swig Student Center which includes a dining hall and lounge facilities.

Massell Quadrangle

Consisting of Shapiro, DeRoy, Renfield and Usen Residence Halls, and the Sherman Student Center, this is a major housing and recreational area. Each unit has functionally equipped rooms with maximum living and closet space. Ground floor lounges overlook the central quadrangle and the walks encircling Anne J. Kane Reflecting Pool.

Leon Court

Leon Court, a residence area, has four dormitories and a large student center-dining hall grouped around an attractive, wooded quadrangle. Each dormitory unit contains fully equipped student rooms, a lounge and large recreation room. Dormitories in this quadrangle have been designated the Scheffres, Gordon, Cable and Reitman Halls. The student dining hall is Milton and Hattie Kutz Hall.

Ridgewood Quadrangle

Emerman, Fruchtman, Danciger, Allen and Rosen Residence Halls comprise the University's living areas for students on the south campus. Each hall has two lounges opening on the quadrangle.

Sherman
Student Center



The Castle

An imposing structure designed after medieval architecture and completed a decade before Brandeis was founded, the Castle has been remodelled into single, double, and larger rooms for women. Its ground floor houses the University Snack Bar and the student-operated coffee shop, *Cholmondeley's*.

Schwartz Residence Hall

This companion structure to the Castle, houses women. Its lounge, a retreat for reading, relaxation and entertainment, is furnished in contemporary style.

Sherman Student Center

The glass walls of Sherman Student Center rise from the ground level to roof, overlooking Massell Quadrangle and the Kane Reflecting Pool. Its ground floor dining hall serves several hundred students daily and is frequently utilized as a banquet hall for major University functions. Along the upper level are located a large lounge, game room and two smaller dining rooms. Bulletin boards of these rooms serve as the major communications center for student activities and the walls frequently are hung with special art exhibits. Dances, parties and meetings often occupy the entire building on busy evenings.

Themis House

Special seminars, conferences and symposia are housed at Themis House, located in Weston, Mass., a few minutes from the campus. Thirty to forty participants may be accommodated for food and lodging at this University conference site, made available by Mr. and Mrs. Boice Gross.

Feldberg Lounge

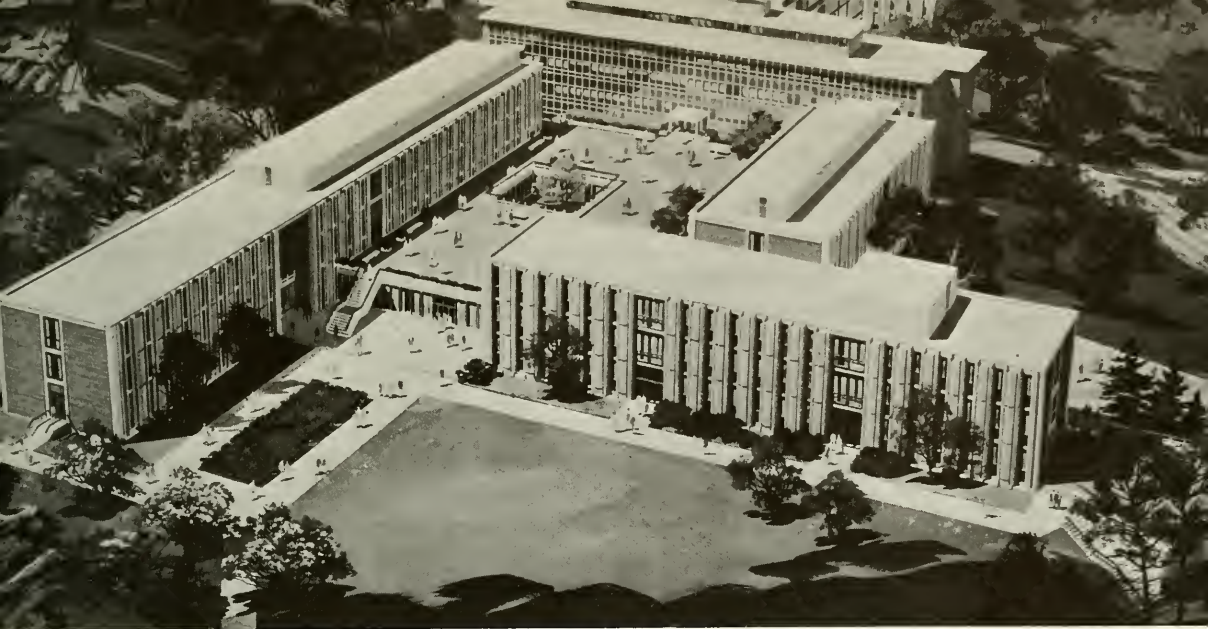
Spacious and comfortable, this glass and brick walled lounge is used for informal discussions, lectures, songfests and conferences and is a favorite meeting place between classes. Works of art by student and professional artists are on constant exhibit.

Kutz Hall

A towering ceiling, attractive furnishings, a site overlooking Greater Boston, make Kutz Hall a versatile and popular student dining hall. Banquets seating 500 are held on its main floor. An outdoor terrace and commodious balcony provide unusual settings for receptions and student social activities. Folding walls under the balcony permit creation of private rooms for dinner meetings of student or faculty groups. The towering north wall of Kutz Hall mirrors the rest of Leon Court in its more than 8000 square feet of glass.

Kutz Hall





Gerstenzang Quadrangle . . . Under construction

Swig Student Center

The attractively furnished Swig Student Center, in the East Quadrangle, provides dining facilities for 330 students as well as lounge and terrace for student receptions and social activities. It also includes a private dining room for dinner meetings of student groups. The Swig Student Center is connected to the dormitories of the East Quadrangle by an overhead walk.

Mailman Hall

This striking glass, brick and granite structure provides spacious lounges, modern recreational rooms and facilities for the display of painting and sculpture. A recently completed addition to this building includes student publication offices, the campus radio station, offices and meeting rooms for the Student Council and other student organizations.

Usen Commons

Greater Boston spreads out in a panoramic view from the windows of Usen Commons, a circular, conservatory style lounge on the second level of the Castle. Since the earliest days of the University, this lounge has been familiar to Brandeis students as ideal for small dances and social functions.

Dining Halls

University dining halls are located in Kutz Hall, Swig Student Center and Sherman Student Center. A separate kitchen is maintained in Sherman Student Center for those wishing special dietary meals. In addition, light refreshments are provided in the Castle Snack Bar and *Cholmondeley's*.

Stoneman Infirmary

On the forward slope of the campus, near the Castle, the Infirmary houses a first aid treatment room, lounge, out-patient clinic, four consulting suites, and rooms for twenty-four bed patients. A recently completed new wing increased patient capacity by fifty percent.

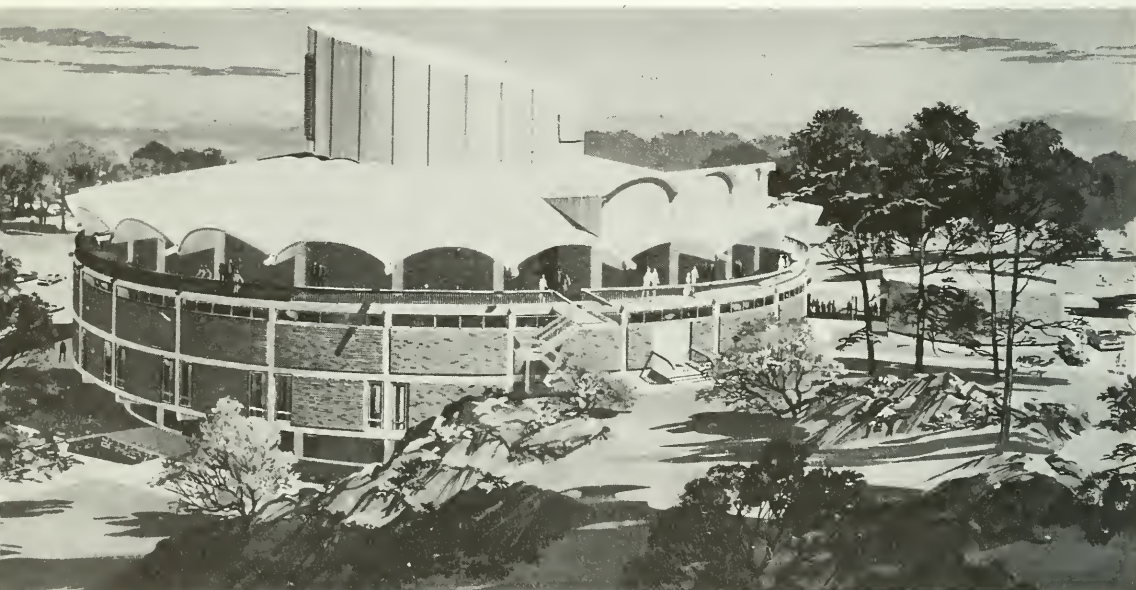
The Three Chapels

Assuming that worship is a matter of mood and spiritual climate, not limited to words or ceremonies, the University's Harlan, Berlin and Bethlehem Chapels serve the Protestant, Jewish and Catholic faiths. A centrally located pulpit serves a large outdoor area where shared functions such as Baccalaureate are celebrated. Student organizations responsible for services are the B'nai B'rith Hillel Foundation, Newman Club and Student Christian Association. Each has its own chaplain.

Campus Landscape Architecture

Under a special grant from David and Irene Schwartz, funds have been provided for a systematic landscaping of the campus to achieve a harmony between the terrain's natural beauty and the building architecture as conceived and executed by some of the nation's noted architectural figures.

Spingold Theatre . . . now under construction



Facilities Under Construction

Spingold Theatre

In addition to a theatre auditorium, Spingold Theatre, now under construction, will contain workshops, design rooms, costume preparation and storage areas, seminar rooms, classrooms, faculty offices, rehearsal and dressing rooms, a little theatre and a dance studio. It will be completely equipped to meet the needs of instruction in all aspects of the theatre arts. The great lobby will be designed to exhibit art treasures. The Spingold Theatre is located on the southwest campus which has been designated for the complementary development of the University's creative arts teaching facilities.

Gerstenzang Science Quadrangle

When completed, Gerstenzang Science Quadrangle, now under construction, will triple the University's facilities for scientific investigation. The Quadrangle will comprise teaching and research buildings, erected around a science library and lecture-demonstration auditorium. Gerstenzang Science Library will contain stacks for 250,000 volumes, along with facilities for preparation and use of microfilms, a periodical room and journal reading area, office and other library administration facilities. The lecture-demonstration halls will be constructed as amphitheatres, one seating 300 and the other 100. Units included in the quadrangle will be Bassine Biology Center, Abelson Physics Building, Bass Physics Building, Harry Edison Chemistry Building, Goldsmith Mathematics Center, Lecks Chemistry Building and Segal Physics Building.

Biochemistry Research Center

Also under construction is a new Biochemistry Research Center including the Kosow Biochemistry Building and the Wolfson-Rosensweig Biochemistry Building. The new Biochemistry facilities are located behind the existing Friedland Research Center and will be joined to this building on all floors. These buildings will provide additional modern laboratories in which will be conducted research in Biochemistry and related life sciences.

Projected Facilities

Heller School Building

A new structure to house the Florence Heller Graduate School for Advanced Studies in Social Welfare is currently being planned. This building to be located adjacent to the Olin-Sang American Civilization Center will provide seminar rooms, research offices and work rooms and faculty offices. When completed this building will house, under a single roof, all of the teaching as well as the multi-faceted research programs being done by the Heller School.



The College of Arts and Sciences



Admission of Students

Principles

Admission to college is not merely a matter of meeting specific requirements. Since the number of qualified candidates each year substantially exceeds the limit that may be registered, the function of the Committee on Admissions is largely selective. Selection is based solely on merit, without reference to geography, race, religion, color, nationality, or the social or economic status of parents. The Committee selects those candidates whom it believes best fitted to the University's educational program and most likely to contribute to and profit from the life of the academic community.

The Committee on Admissions gives weight to the following considerations in the evaluation of candidates: the secondary school record, including academic grades, the principal's recommendation, rank in class, test scores, personality chart and extracurricular activities; the scores obtained in the Aptitude and Achievement Tests of the College Entrance Examination Board; impressions gained from a personal interview; the medical and health report; and the candidate's statement concerning his objectives in college.

Entrance Requirements

To be eligible for admission to the College, a candidate must have completed a college preparatory course in secondary school leading to graduation or its full equivalent. He should have received the unqualified recommendation of his secondary school principal and his rank in class should be high.

An adequate course in preparation for college should include four years of English (grammar, composition and literature), three years of a foreign language (two years each of two languages is acceptable but less desirable), two and a half years of mathematics (intermediate mathematics, emphasizing basic algebraic, geometric and trigonometric concepts and deductive reasoning; science concentrators should have, in addition, a year of advanced mathematics), one year of science (chemistry, physics or biology), and one year of history. The remaining courses up to the number required for graduation should generally be in traditional college preparatory subjects. It is recognized, however, that courses in art and music are of value to students intending to concentrate in those fields in college.

The Aptitude and Achievement Tests of the College Entrance Examination Board are regarded by the Committee on Admissions as a basic measure of an applicant's fitness for college study, and as the fairest method of evaluating on a competitive basis the qualification of candidates from different schools and areas. All applicants must take the Aptitude and three Achievement Tests. The Writing Sample is not required, and may not be substituted for an Achievement test. The College Board tests should be taken in the senior year, preferably in the December and January sessions, and no later than March. Junior year achievement scores are acceptable, however, when taken in terminal subjects. The College recognizes the desirability of aptitude tests in the junior year for purposes of guidance.

Full information concerning the tests may be obtained from secondary school guidance directors or directly from the College Entrance Examination Board, Princeton, New Jersey, or Box 9896, Los Feliz Station, Los Angeles, California. The candidate should direct the Board to report his scores to the Dean of Admissions of Brandeis University. The choice of the three Achievement Tests will to some extent be governed by the interests of the candidate and his proposed field of concentration in college. It is recommended, however, that the candidate take Achievement Tests in: a) English or social studies; b) a foreign language; c) mathematics or a science.

Admission to Advanced Standing

Brandeis University is affiliated with the Advanced Placement Program

of the College Entrance Examination Board. Students who obtain a score of 3 or higher in an Advanced Placement Examination will be eligible to take an advanced course in the area of their examination and will be given semester hour credits comparable to that awarded for completion of a similar course at Brandeis. Further information about advanced placement at Brandeis may be obtained by writing to the Dean of Admissions for a supplementary brochure. After admission, petitions for the waiver of specific courses should be made to the council chairman of the appropriate school for recommendation to the Administrative Committee of the Faculty.

Transfer students may be admitted to the sophomore or junior classes of the College and receive credit for courses satisfactorily completed in other colleges of acceptable standing and in subjects similar in nature to those offered in the Brandeis curriculum. All transfer candidates should have sent to the Dean of Admissions the scores of the Scholastic Aptitude Test and Achievement Tests of the College Entrance Examination Board which they have taken. Those candidates who have not previously taken these examinations will be required to take the Scholastic Aptitude Test of the College Entrance Examination Board no later than March of the year in which they seek admission.

Brandeis University has a two-year residence requirement for its undergraduate degree. It is not possible, therefore, to accept transfer students for the senior year only.

Admission of Special Students

The Committee on Admissions may accept as special students a small number of applicants who are not candidates for a degree and who may wish to elect one or more course of study in which they are qualified. The category of special students is limited to those persons not of college age who wish to pursue a limited non-degree program of study.

Admissions Procedure

The college year begins in September and new students usually are enrolled only at that time. The application for admission to the freshman class or to advanced standing should be filed early in the academic year and *no later than February 15, 1965*. The Committee on Admissions will not act on an application until it has received transcripts of previous academic work, the College Board test scores and the essential recommendations. In addition, the candidate should arrange for a personal interview by March 1.



A personal interview is considered advantageous for both the candidate and the Committee. Each prospective student is urged to visit the campus at his earliest convenience. Appointments for interviews should be made in advance. The Office of Admissions, which is located in Gryzmish Academic Administration Center, is open Mondays through Fridays, including vacation periods, but excluding legal holidays. Candidates unable to visit the campus should write requesting off-campus interviews.

Candidates for the freshman class will be notified of the Committee's decision in mid-April. Brandeis has no formal Early Decision Program, although some candidates of exceptional promise may be notified after the receipt of senior College Board scores if all the application materials have been received. Transfer students may expect to hear from the Committee late in May.

Upon notification of acceptance, a candidate is required to remit the reservation fee within the time specified if he chooses to accept the place offered to him.

All new students will be required to complete a Health Examination Report, Part A of which is to be completed by the applicant and Part B by his family physician. The admission procedure cannot be considered complete until this Health Examination Report has been approved by the Medical Department.

Foreign Students

A special program of full maintenance scholarships for foreign students has been made available through the generosity of Mr. Lawrence A. Wien, a trustee of the University. The Wien International Scholarships are designed for one or more years of study for undergraduate students presently enrolled in universities outside the United States. All candidates for Wien International Scholarships will be requested to submit a transcript of their academic work at the secondary and university levels. Whenever possible, a personal interview with a representative of Brandeis University will be arranged for those candidates who appear to meet the standards of admission.

Applications and descriptive information concerning this program may be obtained upon request to the Director, Wien International Scholarship Program.

A Wien Student reception



Fees and Expenses

Financial Regulations

Students will be permitted to register for classes only after all financial obligations have been met or satisfactory terms of payment have been arranged with the University Finance Office prior to the due date of the bill in question. Payment received after the due dates of September 9, 1964 and January 13, 1965, or the due dates of the alternative plans, will be subject to a penalty charge of \$10.

Report of grades or transcript of records will be issued to students only after all financial obligations to the University have been discharged.

Any student who has not cleared his financial obligation or made satisfactory financial arrangements with the University Finance Office may be denied the privilege of attending classes and use of University facilities.

Each application for admission must be accompanied by an Application Fee of \$10.00. The Application Fee is not refundable nor can it be credited toward other fees.

A Reservation Fee of \$50 must be filed by each candidate upon notification of acceptance. This fee reserves a place in the class and is credited toward the first semester tuition bill. If the student fails to enroll, or withdraws his application, the Reservation Fee is not refunded.

The General Fee of \$95 provides medical-health care for twelve months and library privileges. Upon payment of a Student Activity Fee of \$30, collected by the Student Council, students enjoy free admission to cultural, social, and athletic events held on campus during the academic year. This fee provides independence in the conduct of student programs.

Tuition and Other Fees*

The Tuition Fees for the 1964-65 academic year are as follows:

<u>Class of:</u>	<u>Tuition</u>	<u>Extra Course Fees</u>
1965—Seniors	\$1,450	\$145
All Other Classes and all Transfer Students	\$1,650	\$165

A fee is charged for laboratory supplies which varies according to the specific course involved.

Seniors are charged a \$10 Graduation and Diploma Fee.

*The tuition fees listed in this catalog represent, at the present time, only fifty percent of the actual cost of providing full educational opportunities for each student for a single academic year. The remainder must be met by the University from general funds made available by benefactions and other special gifts.

With the approval of the Administrative Committee extra courses may be taken. The extra course fee is as scheduled above. Students who are awarded financial assistance by the University, and who need to take extra courses, may request the Scholarship Committee to authorize appropriate increases in the awards they receive.

All fees for special and part-time students must be paid in full by the time of registration for each semester.

Transcript Fee

Students are entitled to one formal transcript of their academic work without charge. A charge of \$1 will be made for each subsequent transcript. The student will pay the transcript fee in advance at the Cashier's Office (Bernstein-Marcus Business Administration Building).

Residence Fee

The Residence Fee for room and board for the 1964-65 academic year is \$1,000, consisting of room charge of \$400 and board charge of \$600. Entering freshmen must mail a deposit of \$25 to the University with the room application. This application form will be sent to the student with the notification of acceptance. This deposit is credited toward the first bill and is not refundable if the student fails to register. Returning upper-class students must make the advance deposit before the spring room drawing. Upperclass students who fail to notify the Housing Office by July 1 of their intent not to honor their room reservation will forfeit the advance room deposit, and it will not be applied to their account.

Room contracts are signed by each resident student and are binding for the full academic year.

The fee for board includes a 21-meal dining hall contract. A 15-meal per week contract, excluding Saturdays and Sundays, at \$500 a year, is available to those students whose family residences are in Greater Boston. A request for such an arrangement must be made no later than two weeks after the beginning of classes in the Fall Term and must be accompanied by a written statement from a parent and submitted to the Steward's Office.

If the student is granted a 15-meal contract for the first semester, a credit of \$50 will be applied to the student's second-semester bill. The billing for the second semester will automatically be made at the 15-meal contract rate.

Non-resident students may eat in the University dining halls or Snack Bars on a cash basis.

Special Fees

The following special fees are payable in cash:

1. Each change of course after the initial two weeks of each semester must have the approval of the Administrative Committee and will incur a charge of \$5.
2. Late Registration fee, \$10.00.
3. Makeup Examination fee, \$5.00.
4. Medical and Dental School Recommendation fee; \$1.00 for each school.
5. Late payment fee, \$10.00.

Schedule of Payment of Bills

Complete payment of Semester billings will be due on or before	First Semester September 9, 1964	Second Semester January 13, 1965
Tuition (as per class of <i>original</i> assignment as detailed on Page 44)	One-Half	One-Half
General Fee	\$ 95.	—
Residence Fee	500.	\$500.
Special Fees (Senior Graduation Fee, Laboratory Charges, Room Damages, etc.)	As rendered	

Other Student Expenses:

A student may expect to spend between \$100-\$150 per year for books and school supplies. In preparing a budget of annual expenses, students should also take into account personal and incidental expenses as well as transportation costs.

Alternative Payment Plans:

Many local banks now offer educational finance plans. Interested individuals should contact banks in their local communities for details.

The University has its own plan which permits four quarterly payments within each semester on specific dates established by the chief accountant. A written request in advance of the start of each semester or academic year is necessary for participation in the plan. A service charge of \$5.00 per semester is made. Payment should accompany requests.

The University also offers longer term payment plans through the New England Merchants National Bank. Information may be obtained from the chief accountant.

Supplementary Bill:

A supplementary bill may be rendered in any individual case, for charges not included in previous bills.

Refunds

No refund can be made of the Tuition and General Fees because of absence, illness, dismissal or exclusion during the academic year.

If a student withdraws from the University within the first two weeks of the beginning of classes in each semester, he may be granted a refund in accordance with the following provisions:

1. He may receive a pro rata refund for board in the University dining halls, calculated to the nearest full week.
2. He may petition the University Finance Office for a partial refund of tuition.
3. No refund will be made of the payment for a room in the University dormitory for the semester in which severance occurs, unless a waiting list for room assignments exists, and the room vacated is able to be rented again by the Housing Committee.

Students who withdraw after two weeks from the beginning of classes may request, through the Steward's Office, a refund of the board bill, calculated to the nearest full week. In no case will refunds be made of tuition.

All approved refunds will be made by the Chief Accountant.

Every student must satisfy his financial obligations in full to the University before he shall be considered eligible for graduation.

Financial Assistance

Generous benefactors throughout the country have provided Brandeis University with funds for financial assistance to students. Grants of assistance are made on a competitive basis of merit. Their amount is adjusted to fit the need of the applicant and is applied to University fees. Prospective students should direct all inquiries to Dean of Admissions, Gryzmish Academic Administration Center, Brandeis University, Waltham, Massachusetts 02154. Enrolled students should consult the office of the Dean of Students. Awards to new students will not be made until they have been accepted for admission, and all such candidates are required to file a parents' financial statement with the College Scholarship Service of the College Entrance Examination Board. Calculation of student need is based in part on an estimation of earnings in summer employment and part-time employment during the school year.

Students should also investigate the scholarships and awards available from many civic, fraternal, and religious organizations in their home community.

Scholarships

Scholarships will usually be awarded in competition on the basis of high scholastic attainment, superior character or conspicuous talent. Scholarship stipends will be adjusted on the basis of individual need as determined by the Committee on Admissions and Scholarships. A few scholarships covering tuition, board and room are available to exceptional students.

Generally, a student may expect to have his scholarship renewed annually, provided that his academic performance and citizenship record is of sufficient quality and that his financial need continues. Scholarships may be adjusted according to the Committee on Financial Assistance's determination of need, academic and personal performance, and increased employment opportunities. It is the current policy of the Committee to combine scholarships with loans in order to financially assist as many students as possible without having some students assume overwhelming debt. Students, therefore, may have gradual annual adjustments (either increases or decreases) made to the amount of scholarship aid they receive during the undergraduate years.

Loans

Prospective and newly admitted students should make application for loans through the Office of Admissions. Enrolled students should make application for loans through the office of the Dean of Students. All student loans require the approval of the Dean of Students. Loans are to be repaid in accordance with a schedule agreed upon with the chief accountant. Interest is charged at the rate of 3% per annum on balances outstanding at the date of severance or withdrawal, or July 1, one year following graduation from the University.

The National Defense Student Loan Fund established by the National Defense Education Act of 1958 provides a fund that permits loans up to \$1,000 per year with a maximum of \$5,000 for any one borrower. Brandeis University is a participant in this program. Additional information and requests for applications may be obtained from the Dean of Students.

In addition, students who are Massachusetts residents may file for loans with their local banks under the Higher Education Loan Plan. Information about this Plan is available at any Massachusetts bank. New York residents should write to the New York Higher Education Assistance Corporation, State Education Building, Albany 1, New York, for information. Students who are residents of other states should inquire at their local banks concerning similar opportunities in their state.



Student Services

Office of the Dean of Students

The Dean of Students, a University Officer, has general supervision over the academic status of students, all student services, and extra-curricular activities.

The Office of the Dean of Students (Gryzmish Academic Administrative Center) supervises and coordinates the activities of the various administrative departments designed to meet student needs. The Dean and his staff provide academic, vocational, and personal counseling for all students.

The Office of the Dean of Students directly concerns itself with the administration of financial assistance to deserving and needy students, supervising extra-curricular student activities, and executing decisions of the Administrative Committee of the Faculty. Selection of academic fields of concentration and the faculty and class advising system are supervised by the Dean's office. Other services to students, including operations relating to housing, employment and placement, registration, foreign students, study abroad, athletics, medical care and religious activities are coordinated through the Office of the Dean of Students.

The Administrative Committee

The Administrative Committee of the faculty reviews academic records after midyear and final return of grades, prepares the Dean's List, grants leaves of absence and withdrawals, establishes rules and regulations covering student life, adjudicates infractions of rules and enforces the academic regulations of the Faculty. The Dean of Students is chairman of this Committee. *Students who wish to petition the Committee must do so*

through the Office of the Dean of Students. The decisions of the Administrative Committee are final. Certain areas of decision have been delegated by the Administrative Committee to the Student Board of Review, which is elected by the student body.

Office of the Registrar

The Office of the Registrar (Gryzmish Academic Administration Center) secures and maintains the official records of students. This office conducts registration and arranges the schedules of classes and examinations. Students who have class or examination conflicts should consult the Office of the Registrar. Petitions for permission to take either half of a whole course for credit may be obtained at this office early in January of each year. Petitions for permission to take courses at summer schools for credit toward the Brandeis degree may be filed at this office in the spring of each year. At the end of each year students receive a report of their grades and of their progress toward the degree. This office issues the official transcript of the University on request and it serves as the liaison office between students and Selective Service Boards and the Veterans' Administration. Foreign students who have visa problems should consult this office.

The Office of Career Planning

The Office of Career Planning assists undergraduates, seniors, graduate students and alumni with their graduate and career plans. Information on graduate and professional school fellowships and scholarships; graduate and professional school catalogues; lists of on and off campus part-time jobs; lists of summer jobs and individual listings of permanent positions; civil service opportunities and work and travel opportunities abroad are on file in the Office of Career Planning for the use of all students and alumni.

The Office of Career Planning will assist any student who seriously needs and desires part-time work. Students seeking part-time work should register with the Office of Career Planning. New students will not be assigned part-time work prior to arrival on campus. Students are cautioned against working more than eight to ten hours per week.

Freshmen should seriously question the wisdom of seeking any part-time employment until they are certain that they can fulfill their academic responsibilities. However, Brandeis University has no rule preventing freshmen from working the first semester.

The on-campus, part-time student rate of pay is \$1.20, \$1.30 or \$1.40 per hour depending on skill and on the amount of time worked for a department. Students can expect to earn from \$200 to \$400 per year. Temporary jobs are often available on a day-to-day basis.

Student Affairs

The office of Student Affairs serves as resource for coordinating a variety of personal services of undergraduate life.

Extra-curricular student activity at Brandeis University is a major part of campus living. Values and ideas of classroom experience and the traditions of a democratic society are extended and developed through an intensive program of imaginative student activities. These activities are no mere adjunct to formal study, but together with the pursuit of academic disciplines contribute significantly to the development of intelligent college citizens.

Residence

The undergraduate college is essentially a residential college. As a general practice, students whose parents do not reside in Greater Boston are expected to live in University residence halls. Graduate residents are responsible for residence hall supervision, under the direction of the Housing Office. Seniors are employed as assistant residents to aid in the administration of residence halls.

Campus living accommodations consist predominantly of double rooms, some single rooms and larger quarters. Each residence hall has its own lounge or lounges. Modern laundry and other conveniences are available to all students. Each resident student should bring blankets, lamps and such rugs and decorations as are desired. Arrangements for linen and towel service may be made through the University.

Though Brandeis is a residence campus, some upperclass students have been permitted to live off-campus on application to the Housing Office. All requests for permission to live off-campus should be secured from the Housing Office, and must be returned there prior to the spring recess for the subsequent year. Students are reminded that these applications must be accompanied by parents' permission, and that those on warning or probation may not live off-campus.

Student Government

Brandeis students consider themselves a part of a community dedicated to the advancement of liberal values, the enrichment of life experience and the deepening of learning. Organized as the Brandeis Student Union, they consider it their prime responsibility to create a democratic student organization, to increase the flow of new ideas and to provide enjoyable and creative recreational and cultural activities for all students.

The Student Union is the assembly of the entire student body. The Student Union Council, consisting of elected officers and elected representatives from each class, meets weekly to conduct its business and supervise its programs. One of its major responsibilities is the allocation of the Student Activities Fee, which is paid by all students as part of the Matriculation Fee.

Many problems of student discipline are placed entirely in the hands of the Student Board of Review or the Women's Subsidiary Board of Review, which act as judicial bodies.

In addition, each class elects its own officers to manage various class activities and functions.

Publications

The student publications include *The Justice*, a newspaper edited and managed entirely by students to cover matters of campus interest; *The Turret*, a student literary magazine; *SCOPE*, covering the social sciences. *The Yearbook* is published annually by the Yearbook Club in cooperation with the Student Union. *The Brandeis Handbook*, published annually by the students and the University, contains useful information on the University and its adjoining communities.

Organizations

A variety of student organizations exists for all who are interested. Organizations are open to any matriculated student on the basis of competency or interest. No exclusive or secret societies may be organized.

Academic interest clubs include the Pre-Medical and Pre-Dental Society, the Pre-Law Society, the Spanish Club, German Club, Hebrew Circle, Le Cercle Français, and organizations for those interested in Philosophy, Biology, Chemistry, Mathematics, Physics, Anthropology, Art, Psychology, Sociology and other fields.

Religious activities are centered in the Three Chapels and are conducted by the three student religious organizations, the Hillel Foundation, the Newman Club and the Student Christian Association. In addition, each of these groups has a chaplain to serve its needs and interests.

Musical, dramatic and similar activities are engaged in by a number of student groups including the Gilbert and Sullivan Society, the Brandeis University Chorus, the Brandeis Student (Drama) Productions, and the Modern Dance Club. An original student production of a musical comedy nature is presented each year by the Hi-Charlie Association, and the proceeds are used for a student scholarship.

The University, in cooperation with the Radio Club, has established a campus radio station. The station, WBRS, is operated by the Radio Club for the residents of the campus community.

The Brandeis Debate Society offers a program of training for interested students. The University supports this activity by providing professional coaching. Novice and Varsity debaters are selected to represent Brandeis in intercollegiate competition organized around the annual national debate topic.

Honor Societies

Phi Beta Kappa

Phi Beta Kappa, for more than a century and a half, has fostered liberal education and has supplied a national criterion for the recognition of students of scholarly promise and attainment.

With the installation of the Mu of Massachusetts chapter in March, 1962, 14-year-old Brandeis University joined the ranks of 166 of the nation's liberal arts colleges with chapters of Phi Beta Kappa, and became the youngest independent institution authorized to form a chapter of Phi Beta Kappa since the 18th century. Elections of members-in-course, Alumni members, and Honorary members, based upon scholarly attainment and distinction, takes place at the end of the academic year.

Delta Phi Alpha

In 1962, a chapter of Delta Phi Alpha, the national German honorary fraternity, was established at Brandeis. Students are elected to Delta Phi Alpha on the basis of excellence in the study of German.

Omicron Delta Epsilon

Omicron Delta Epsilon is the Brandeis Chapter of the National Honor Society in Economics. It was established in 1963. It stimulates and promotes student interest in all aspects of Economics and confers distinction for high scholastic achievement in Economics.

Sigma Xi Club

The Brandeis Sigma Xi Club was authorized in 1961 by the national Sigma Xi organization, an honorary scientific society devoted to the encouragement of understanding of the advances and aims of scientific investigation. The local group is composed of faculty and staff members of the departments of Biology, Biochemistry, Chemistry, Mathematics, Physics, and Psychology. Each year the society sponsors a series of general lectures on scientific topics open to the entire Brandeis community.

Dining

University dining halls are located in Kutz Hall, the Sherman Student Center and the Benjamin and Mae Swig Student Center. A separate kitchen is maintained in the Sherman Center for those wishing special dietary meals. In addition, light refreshments are provided in Cholmondeley's and in the Snack Bar, located in the Castle during the day and in Kutz Hall in the evening.

The University Health Office

The Medical Director and his staff are responsible for supervision of the physical welfare of students, including the establishment and enforcement of infirmary regulations. Payment of the required medical fee entitles students to treatment available in the David Stoneman Infirmary, and to participate in the benefits of the Student Health Plan.

New students in the college as well as the graduate schools are responsible for submission of a health examination report and meeting all requirements of the Health Office. These include a certificate of inoculation against smallpox, evidence of tetanus immunization and, if possible, complete immunization against poliomyelitis. Since students are not permitted to register until these requirements have been satisfied, it is strongly recommended that reports be submitted at least two months before registration. All new students must report for physical examinations at the beginning of each academic year.

The health insurance program helps defray expenses during the academic year only (September to June) for treatment beyond the scope of the Health Office. Insurance providing coverage for the summer period is available to students on an optional basis. A brochure outlining the details of this program is distributed to each student at registration, and copies are mailed to parents. Students and parents are urgently requested to read this brochure. It should be noted here, however, that coverage is not provided for pre-existing conditions, extraordinary cases, psychiatric treatment, optical and dental services or special materials.

The Insurance Program will be extended to a 12-month basis effective September, 1964.

Within the limitations of the insurance coverage, fees of outside doctors and hospitals will be processed for payment only when consultations or hospitalization have been authorized by the University Health Office in advance on a form provided for this purpose. The University is not responsible for off-campus medical and hospital care sought by students or their parents on their own initiative, or for outside care or consultation which has been recommended but not authorized by the Health Office.



The Psychological Counseling Center

The Psychological Counseling Center is located in Lemberg Hall. It provides professional assistance to students who have personal or emotional problems. Those who wish such help may refer themselves directly to the Center. Their communications with the staff are held in strict confidence.

Athletic Activities

Recognizing the importance of athletics in a sound college educational program, Brandeis University offers a wide variety of organized sports. All aspects of college athletics, however, are subordinate to the essential purposes for which the University exists and are controlled by educational considerations as determined by the Faculty. The athletic program exists for the welfare of the student, and for the contribution it can make to his healthy educational experience. A physical examination is required before one may participate in any organized sport.

The University fields varsity teams for men in soccer, basketball, baseball, fencing, swimming, tennis, and golf. Women engage in varsity competition in basketball, volley ball, field hockey, tennis, fencing, and softball. These varsity squads compete against teams representing colleges and universities which regard the concept of athletics in the same light as does Brandeis University. Playing on a home-and-away basis, Brandeis teams have journeyed to, and have in turn acted as host to, teams from the Midwest, the South and New England. All home athletic contests are played on campus on Marcus Field or in the Shapiro Athletic Center. Brandeis club teams in lacrosse, bicycling, and bowling have also been established and play in intercollegiate competition.

Believing in the values of athletic participation for both conditioning and relaxation, the University supports a full scale intramural program for its students. Intramural competition in various sports is organized on a Residence Hall basis. Trophies are made available to winning Residence Halls as well as to individual participants. The men's in-



tramural program includes touch-football, basketball, softball, tennis, golf, ping pong, badminton, and bowling. Residence Hall and commuter teams have been organized in these sports, with the competitive aspects subordinated to the enjoyment of the game.

Women's activities include archery, badminton, basketball, bowling, fencing, golf, softball, ping pong, tennis, and dance. The Women's Physical Education Department sponsors the Women's Athletic Council, organized by the students. This Council is responsible for the women's sports program. Included among the Council's activities is the Modern Dance Group. Students who have special talent in modern dance are afforded the opportunity to specialize in more advanced technique and group choreography, leading toward a dance concert given in the Spring. The augmented women's athletic program has been made possible through a generous grant from Mr. and Mrs. Charles Revson of New York.

In addition to the above student activities, numerous guests are invited to the campus each week for programs of an educational or artistic nature.

Bookstore

The University Bookstore, in the Old Library Building, is owned and operated by the University for the convenience of its students. It is open Monday through Friday, from 9:30 a.m. to 4:30 p.m. The Bookstore is able, through its close association and coordination with all academic departments and faculty members, to offer students a comprehensive stock of textbooks and paperbacks correlated with the academic program and with the students' interests. School supplies, drugs, personal needs and gift items may also be purchased at the Bookstore.

Mailroom

The Campus Mailroom is located in the Old Library Building. All student mail is delivered to the Campus Mailroom and a separate mail box is maintained for each student. The Mailroom is open from 11 a.m. to 5 p.m. Monday through Friday and from 11 a.m. to 12 noon on Saturday. All postal services are provided, including the sale of stamps and money orders, registration of mail and the handling of parcel post packages.

Automobile Regulations

The University will not permit freshmen to maintain automobiles on campus. All other students who intend to drive on campus must register their vehicles with the Department of Buildings and Grounds and the Dean of Students and must observe University Traffic and Parking Regulations.



Academic Regulations

The College accepts as degree candidates only students who carry a full program, which is five courses per term. Members of the junior and senior classes who are concentrating in a science may work at the four-course rate, provided they carry fifteen semester-hour credits in each term and are making normal progress toward their degree requirements.

Permission to take one additional course may be granted by the Administrative Committee of the Faculty to students whose records are above average and who have special reasons for needing additional credit. Consult the chapter on fees and expenses for the cost of a sixth course. Petitions for additional courses are filed in the Office of the Dean of Students.

Students working at more than the five-course rate and less than the six-course rate may make a program change after the second week of a term only with the permission of the Administrative Committee.

Regularly matriculated students who wish to audit courses should secure the permission of the instructor.

Class Standing

The minimum number of credits required for advancement to each class is as follows: sophomore, 30; junior, 60; senior, 90; for graduation, 120. Students will be advanced at the end of each academic year. Students who wish to be advanced at the end of the Fall term should consult the registrar.

Changes in Courses

Students who wish to make changes in their programs must file, at the Office of the Registrar, a course change form which bears the written approval of the instructors concerned and of their faculty advisers. Students who request such changes after the first two weeks of instruction of the semester must also pay a fee of \$5.00 for each change of courses. Students may not enter a course after the fourth week of the term.

Withdrawal From Courses

Matriculated students who wish to work at less than the required course rate must consult the Office of the Dean of Students and obtain the approval of the Administrative Committee of the Faculty. Permission to work at a reduced rate will be granted only in unusual circumstances. Students who wish to withdraw from a sixth course without academic penalty must notify the registrar by the last day of the term on which a lecture or class in that course is given and pay a fee of \$5.00. Students withdrawing from a sixth course, after the first two weeks of instruction and prior to the midterm return of grades, will be rebated one-half of the tuition charge. Students who withdraw from a sixth course after the midterm return of grades will receive no rebate of tuition.

Withdrawal From The University

A student wishing to take a leave of absence or to withdraw from the University must consult the Office of the Dean of Students. Clearance by all administrative offices and approval by the Administrative Committee of the Faculty are necessary to obtain honorable dismissal.

Summer School Credit

With advance permission from the Administrative Committee of the Faculty, students may attend daytime summer schools of six-weeks or more conducted by accredited colleges and universities for credit toward the bachelor's degree, provided that the courses have the approval of the academic department concerned and of the student's faculty adviser. Only work of honor grade (A or B) will receive credit. Students may earn no more than twelve credits in a given summer, nor more than twenty-four credits toward the degree. Students may petition the Administrative Committee through the Office of the Registrar.

Attendance

All students in good standing, with the exception of freshmen, have unlimited cuts, provided the student is completing the work in his course to the satisfaction of the instructor. A faculty member may, however, require attendance at his course, and every laboratory assignment must be completed even if the student was officially excused for the period.

Students on warning are permitted three cuts per course, per semester.

Students on probation are permitted no cuts.

All freshmen, with the exception of those on warning or probation, are permitted three cuts per course per semester, and those on warning and probation are permitted no cuts.

Official excused absences are granted only by the Office of the Dean of Students.

A student absent from classes because of illness must consult the University Health Office before attendance is resumed. Students must abide by the rules governing excused absences for medical reasons as described in the Health Office pamphlet.

Classes begin at ten minutes after the hour and end on the hour. Tardy students may be marked absent at the discretion of the instructor.

Grades

Formal grades will be reported to the Office of the Registrar four times a year. In determining these grades all components of the student's work in a course will be considered: written work, recitations, laboratory technique and reports, special reports or research and final examinations.

The following grades will be used with plus or minus where appropriate:

A High Distinction, B Distinction, C Satisfactory, D Passing, but unsatisfactory, E Failure.

The numerical equivalents of the grades as determined by the Faculty are as follows:

A	4.0	B	3.0	C	2.0	D	1.0
A—	3.7	B—	2.7	C—	1.7	D—	.7
B+	3.3	C+	2.3	D+	1.3	E	.0

The registrar reports midyear and final grades to students in writing. Instructors notify students of midterm grades.

A student absent from a midyear or final examination is marked "Abs." on the grade sheet. If the absence is excused by the Dean of Students, a regularly scheduled make-up examination will be administered by the registrar. If the absence is not officially excused, the student receives a failing grade in the examination.

All students are expected to complete the work in each course before the beginning of the examination period. As a rule, major assignments, such as term papers, are due one week before the beginning of the examination period. If a student offers an official excuse from the Office of the Dean of Students for failure to complete a major assignment, the instructor submits the mark "Inc." The work must be made up and a formal grade reported to the registrar no later than six weeks after the beginning of the following term. If such a paper is not submitted at the required time, and an official excuse is not offered, the instructor gives a failing grade for the assignment.

If a student has not completed other required academic exercises, such as laboratory assignments or minor papers or quizzes, and the reason

for the failure is an excused absence, the instructor in charge of the course may, at his discretion, require the work to be made up or not count the assignment in determining a grade. If there is no satisfactory excuse for the uncompleted work, the instructor may, at his discretion, record a failing grade.

Reading Period

A reading period, to fall in the two weeks preceding the midyear and final examinations, may be scheduled for courses numbered 100 and above in which the enrollment is composed predominantly of juniors, seniors and graduate students. In lieu of regular class meetings, students are assigned material not otherwise covered in the course. These assignments are dealt with in the midyear and final examinations.

Academic Status

A satisfactory record may contain not more than one D and no E's. At the end of the Fall term, and at the end of the academic year on the basis of the entire year's record, the Administrative Committee of the Faculty announces the Dean's List of honor students according to the following categories: No student will have his name placed on the Dean's List who has a D or more than one C in his record for the period.

Dean's List I

5	A		
4	A	1	B
3½	A	1½	B
4	A	1	C
3	A	2	B

Dean's List II

3	A	1	B	1	C
2	A	3	B		
1	A	4	B		
5	B				

In order to be eligible for the degree a student must compensate for any D beyond two with an A or a B.

Whenever a student's grades are unsatisfactory, the Administrative Committee will notify him and his parents in writing. When there are extenuating circumstances, no further action is taken. A student is placed on warning, a disciplinary status, if his record is not low enough to incur probation. A student who has been warned will be placed on probation at the next grading unless his work is satisfactory. A student is placed on probation if his record is seriously unsatisfactory. Such students will be in danger of dismissal unless their records show marked improvement. A student's connections with the University are severed if his record is so unsatisfactory that the Administrative Committee considers him unable to meet the academic requirements.

Dismissal Or Severance

The University reserves the right to dismiss or exclude at any time students whose conduct or academic standing it regards as undesirable, and without assigning any further reason therefor; neither the University nor any of its Trustees or officers shall be under any liability whatsoever for this exclusion.

Requirements For The Degree

The Brandeis curriculum is based on a twofold program—a general education curriculum and a coherent program of study within a well-defined field of concentration. The general education curriculum requires the student to participate in courses designed to provide a solid general foundation of knowledge about our cultural heritage. Thus, in addition to concentrating in an elected field, the student will be introduced to the major experiences of cultural history and to those significant concepts and achievements of science which should be the common possession of educated men and women.

All regularly matriculated students must complete the prescribed work in the General Education Program. Freshmen will take one of the available Humanities courses, and one of the available Social Science courses, listed on Page 65 under "General Requirements," one course in the physical sciences, and, unless they pass the Proficiency Examination, a half course in English Composition (1a, 1aR). The requirement in physical sciences may be met by the completion of one course selected from Physical Science 1, Physics 10 or 11, Chemistry 10, Mathematics 1, 10, 11, or 12. (Students who



are planning to select a scientific field of concentration should not elect Mathematics 1 or Physical Science 1.) See Page 58 for permission to take a sixth course.

To complete the general education requirements, during either their sophomore or junior years, each student will take one further full course (or the equivalent) in each of the three schools other than the school responsible for his field of concentration. Juniors who wish to postpone a general education requirement until the senior year must obtain the permission of the Administrative Committee. Subject to advance standing procedures, only the following courses may be selected to meet this requirement:

School of Humanities

To meet the requirements, students must complete either a whole course or a pair of half courses as listed below:

Humanities 1	Humanities 7
Humanities 2	Humanities 10
Humanities 3	Humanities 12
Humanities 4	Philosophy 1
Humanities 5	Philosophy 11a
Humanities 6	Philosophy 11b

School of Social Science

To meet the requirements, students must take *two* one-semester courses drawn from *each* of the following two groupings:

<i>Group I</i>	<i>Group II</i>
History 1a, 1b	Sociology 1a, 2a, 2aR
History 51a, 51b	Psychology 1a, 2b
Politics 1a, 1b	Economics 1a, 1b
Anthropology 1a	Anthropology 1b

School of Science

Biological Science 1	Biology 10
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School of Creative Arts

The requirement in the School of Creative Arts must be met by one full-year course or its equivalent within any one of the Departments.

Fine Arts History courses numbered under 100 (2 semesters)	Theatre Arts 1
Music 1	Theatre Arts 108a
Music courses numbered below 50, of which at least one-half course must be in music history and literature.	Theatre Arts 118b
	Theatre Arts 122a



Foreign Language and Literature Requirement

The foreign language and literature requirement for the degree is to be met by all students as soon as possible and within three years of matriculation, through the satisfactory completion of the introductory literature course (10), or of any two half-courses at a more advanced level, in one of the following languages: French, German, Greek, Hebrew, Italian, Latin, Russian, Spanish. The foreign language and literature requirement may also be met with a score of 3 or higher on the appropriate Advanced Placement Examination. Failure to meet the foreign language and literature requirement within the stipulated period may cause the student to be placed on probation.

Concentration Requirement

All matriculated students must pursue and complete work in one field of concentration, in accordance with regulations established by the school having jurisdiction over the program selected. Students must choose their fields of concentration at the end of the freshman year. The requirements for the various fields of concentration are described in the section that follows.

Programs of Study

Freshman Course of Study

Physical Education

All matriculated students must complete satisfactorily the required work in physical education during the first year of attendance, unless exempted from this requirement for medical reasons upon the recommendation of the University Health Office and with the approval of the Administrative Committee.

English Composition Requirement

Proficiency in written expression in English is required. This requirement may be met by one term of English Composition, English Composition 1a, 1aR or 2a.

General Requirements

Freshmen will take one course selected from the following: Humanities 1, 5, 6, Philosophy 1; one course selected from the following: History 1a, 1b, 51a, 51b, Politics 1a, 1b, Anthropology 1a; one course selected from the following: Physical Science 1, Physics 10 or 11, Chemistry 10, Mathematics 1, 10, 11 or 12; a foreign language or literature; English Composition 1a or 1aR, and one elective. Freshmen may be permitted alternative selections where advanced standing has been granted.

In general, students are urged to use their elective courses to explore their future fields of concentration. Students will choose their field of concentration at the end of the freshman year in accordance with the regulations established by the school having jurisdiction over the program selected. Before making this decision the student should carefully review the information presented elsewhere in this catalog on academic requirements and fields of concentration. More detailed information on the specific courses listed below as regularly open to freshmen, can be obtained by consulting the section on courses of instruction.



Courses Open to Freshmen

School of Humanities

CMS 60, 61

English 1a, 1aR

English Composition 1a, 1aR, 2a

European Languages and
Literature:

All courses except French 112a,

112b, German 112a, 112b,

Russian 112a, 112b, Spanish

112a, 112b

Hebrew 1, 2*, 10*

Humanities 1, 5, 6

NEJS 10, 13a, 13b

Philosophy 1, 11a, 11b, 13a,
15a, 17b, 23b

School of Science

Biology 10

Chemistry 10, 15a, 30aR

Mathematics 1, 10, 11, 12

Physics 10, 11, 18a

Physical Science 1

School of Social Science

Anthropology 1a, 1b

Economics 1a, 1b

History 1a, 1b, 51a, 51b

Politics 1a, 1b, 11a, 11b, 12b

Psychology 1a, 2b, 11a, 18b

Sociology 1a, 14a

School of Creative Arts

Fine Arts 1, 103*, 111*

Music 1, 5, 61*, C, E

Theatre Arts 1, 2, 3*

*Permission necessary.

In addition to the above, freshmen will be permitted to enroll in courses not normally open to them, provided that they present to the Registrar with their enrollments the written consent of the instructor in the course and the Chairman of the Department, and the action of the Faculty Adviser.

The Fields of Concentration

The requirements for a Bachelor's degree in the College of Arts and Sciences include the completion of a definite field of concentration. Before the end of the freshman year, each student will choose a provisional field of concentration after consultation with a faculty adviser. Plans for concentration should become definite during the sophomore year and must be approved by a faculty adviser of the appropriate department. An entering student who has reached a tentative decision regarding his future field of interest should elect the basic introductory course in this area in his freshman year and cover more of the groundwork in the elective courses of the sophomore year.

The Liberal Arts Approach

Because the Brandeis curriculum follows a liberal arts approach, the student must not expect to find patterns of courses conceived with specific vocational goals in mind. At Brandeis the student may obtain a broad and sound education in liberal arts and sciences which will prepare him for further study in specific professional and vocational fields at the graduate level.

On the premise that a liberal arts education is the best preparation for professional training, the College of Arts and Sciences does not recommend highly specialized courses for pre-professional students. The liberal arts experience can simultaneously provide the student with a broad foundation of culture and supply him with an adequate background for later specialized training.

Fields for the Pre-Medical and Pre-Dental Students

The Council on Medical Education and Hospitals of the American Medical Association has established, as a minimum educational requirement for students entering medical schools, three years of college training for the average student, and strongly recommends that pre-medical students take the full, four-year college course. This Council and the Association of American Medical Colleges have also prescribed, in addition to English composition and literature (at Brandeis, the English composition and humanities requirements are equivalent), a set of minimum requirements for admission to an approved medical school. These requirements, which include general and organic chemistry, physics and biology, are readily met at Brandeis by the following courses: Biology 10, Chemistry 10 or Chemistry 15a, Chemistry 25, and Physics 10 or Physics 11 plus Physics 19c. These are, however, *minimum requirements*; many schools require more than the specified minimum in certain areas. In order to insure that such additional or specialized requirements can be met in proper sequence within a field of concentration, pre-medical students should very early arrange their prospective college programs with their advisers. In evaluating candidates for admission, medical schools attach some importance to recommendations by faculty committees before which students generally appear in their junior year. Potential candidates are therefore advised to arrange their schedules, wherever possible, to assure they have taken or are in the process of taking the four courses generally required as listed above, at the time they appear before the Brandeis Committee on Recommendations to Medical and Dental Schools. In addition to specific course requirements, most medical schools advocate a broad liberal arts education.



The medical schools do not advocate any specific field of concentration in an undergraduate curriculum, and the field of concentration is not a determining factor in admission to medical schools so long as the specific course requirements of that medical school are met. While many pre-medical students concentrate in chemistry, biology or general science because of some medical schools' specific additional requirements in chemistry and biology, concentration in the fields of humanities, social sciences or creative arts allows ample electives to satisfy the requirements of most medical schools.

The above generalizations apply in large part to the pre-dental student as well as to those planning careers as veterinarians, as medical technicians and as practitioners in related fields. Medical schools and dental schools require an aptitude examination, ordinarily taken by the student in the spring of his junior year.

Other Pre-Professional Students

Other pre-professional students should consult the faculty advisers designated to counsel students in the fields of law, engineering, business administration, social work and religion.

Preparation for Teaching

While the University does not offer a field of concentration in education, it does offer several courses that help to meet the teacher certification requirements of individual states. Students interested in preparing for careers as teachers in primary and secondary schools should inform themselves concerning the certification requirements of the state in which they plan to seek employment and should consult the educational adviser.

Brandeis University has been admitted to membership in the Twenty-nine College Cooperative Plan of the Harvard University Graduate School of Education, created to encourage liberal arts college graduates to enter teaching careers. Students recommended for admission by the member college are given priority in admission and are eligible for the scholarship funds designated for the Plan.

The courses, described elsewhere in the catalog, that help meet teacher certification requirements are as follows:

- Education 10—Practice Teaching
- History 160a—History of American Education
- Philosophy 23b—Philosophy of Education
- Psychology 11a—Introduction to Psychological Statistics
- Psychology 15a—Child Development
- Psychology 30b—Educational Psychology
- Psychology 148aR—Advanced Child Psychology
- Psychology 155b—Advanced Educational Psychology

Many students are able to meet certification requirements during their four regular undergraduate years at Brandeis by attending one six-week summer school session.



Prerequisite for Concentration

Courses to fulfill concentration requirements may not be taken unless prerequisite courses have been passed with a grade of not less than C—.

Satisfactory Completion of a Field of Concentration

In general, a C average is required in courses offered for completion of requirements for concentration. Final decision on satisfactory completion of work in a field of concentration is made by the School Council on recommendation from the respective department or committee.

Degrees with Honor

A student whose grade point average at the end of the junior year is 3.0 or above in his field of concentration, may petition the department concerned for permission to work for honors in his field of concentration. The student's distinction program will be filed with the school secretary and with the registrar before October 15 of the senior year.

The award of *Cum Laude* will be based on a grade point average set by the Faculty.

The awards of *Magna Cum Laude* and *Summa Cum Laude* will be based on a grade point average set by the Faculty, and on the award of honors in the field of concentration.

Each Department or Interdepartmental Committee will submit its recommendation for honors in the field of concentration to the Administrative Committee.

Study Abroad

Brandeis students may participate in a variety of educational programs in foreign countries and receive credit toward their Brandeis degrees for such study abroad. Interested students may seek information and advice from the Office of the Dean of Students.

Students who meet the qualifications set by the Faculty and who are approved by the Administrative Committee, may be allowed to participate in the Jacob Hiatt Institute in Israel, the Sweet Briar Junior Year in France Program, the Smith College Junior Year Abroad Program, or the Junior Year in Israel Program sponsored by the American Friends of Hebrew University. The Committee may, in exceptional cases, permit students to enroll in their junior year in other programs sponsored by American institutions at foreign universities, or to enroll in a special individual program of study. Where advisable, individual students may be interviewed by the Administrative Committee in regard to their proposed junior year plans. The Committee reserves the right to limit the number of students granted such per-



mission. On satisfactory completion of the approved junior year abroad, such students are granted thirty semester-hours' credit.

The Jacob Hiatt Institute in Israel—Under this Brandeis program, inaugurated in 1961, qualified students may be permitted to study in Israel in the summer following the sophomore year and in the fall term of the junior year. Qualified students who have completed two years in residence at other colleges or universities may be admitted to the program. Applications, which should be received by March 1, 1965, should be filed with the Chairman of the Hiatt Institute Selection Committee, Brandeis University.

The Hiatt Institute is devoted primarily to the study and observation of contemporary Israel, its history, and its social and political institutions. Students are based in Jerusalem, but there is considerable travel and on-the-scene investigation in all parts of Israel and into every phase of Israeli life. Intensive instruction in Hebrew is provided during July and August. The major courses of instruction, of which three are required of each student, are conducted in English. On satisfactory completion of the program, the students are awarded sixteen semester-hours' credit. The courses offered in 1964 are in the fields of Hebrew, Modern Jewish history, Israel political institutions and Israel social institutions.

A University-appointed Director administers the Hiatt Institute. He supervises the course of studies, arranges transportation to Israel, living

accommodations in Israel, lectures, tours, visits with Israeli officials and other special features of the program. The comprehensive fee for the six-month program is \$2,000. This includes two-way transportation to Israel, board and room, tuition and medical care. Some partial scholarships are available for deserving students.

Sweet Briar College Junior Year in France—Under this plan, students selected spend their junior year in France pursuing a course of study at the University of Paris. The group is under the supervision of Sweet Briar College (Sweet Briar, Virginia) which arranges round-trip travel, board and room in French homes, sight-seeing trips, enrollment in courses, guides and supplementary instruction by a staff of native-born instructors.

Smith College Junior Year Abroad—Guest students are admitted to the Smith College Junior Year Abroad Program if they meet the necessary qualifications. The program includes junior year in France, Italy, Spain and Geneva. The first three are intended primarily for language majors and the latter primarily for students majoring in economics, government, history or sociology.

Junior Year in Israel—Under a plan sponsored by the American Friends of Hebrew University, students may apply to spend their junior year in Israel under a supervised program conducted by Hebrew University, Jerusalem.

Students who wish to enroll for credit in summer study abroad programs must petition the Administrative Committee of the Faculty for permission in advance of enrollment. The Committee must be satisfied that the course or courses the student intends to take for credit are of good quality and that grades and credits can be ascertained before permission is granted.



The School of Humanities

The Fields of Concentration

The School of Humanities offers the undergraduate student a systematic introduction to our great literary and philosophic heritage. Requirements for concentration and honors are listed on the pages indicated.

	<i>Page</i>
1. Classical and Mediterranean Studies	99
2. Comparative Literature	104
3. English and American Literature	112
4. English and Classics	117
5. European Languages and Literature	117
French	122
German	125
Russian	173
Spanish	180
6. Near Eastern and Judaic Studies	148
7. Philosophy	155

All students majoring in languages and literature are advised to take Theory of Language (French 112a, German 112a, etc.), or English 192b, History and Structure of the English Language. To the extent that it is feasible, all language and literature courses in foreign language areas, particularly those numbered above 10, will be taught in the original language.

Honors Work

To be eligible for honors work, a candidate, at the end of the junior year, must have obtained a grade of B or better in all courses taken for concentration and an average of C or better in all other subjects. He must also have the approval of the appropriate department.

The School of Science

The Fields of Concentration

Requirements for concentration are listed on the pages indicated.

	<i>Page</i>
1. Biology	88
2. Chemistry	95
3. Mathematics	138
4. Physics	158
5. General Science	125

Requirements for Ordinary and Honors Degrees

The School of Science provides the student with the basic scientific training that will qualify him for entry into graduate school or for work at an intermediate level in a chosen scientific field. The programs in the fields of concentration in science require the student to devote approximately one-half of his time to courses offered by the School of Science. The student is encouraged to take such courses outside the School of Science as will best broaden and further his intellectual growth.

To be eligible for honors work, a candidate, at the end of the junior year, must have obtained an average of B or better in all courses taken for concentration and an average of C or better in all other subjects. He must also have the approval of the department in which he wishes to take honors. Students who are candidates for degrees with honors in the various programs administered by the School of Science may be required to take Course 99 in their respective fields of concentration.

Brandeis University has been listed among approved schools of the American Chemical Society. Standards for certification by the American Chemical Society are indicated on Page 95 of this catalog.

Prospective concentrators in Biology are strongly advised to include in their high school curricula mathematics through elements of advanced algebra, trigonometry and analytic geometry. Otherwise, entering freshmen interested in Biology concentration should have a mathematics aptitude score of 600 or above.

Students majoring in science are urged to elect German or French to fulfill their language requirements. Students concentrating in Chemistry, who wish their curricula to meet the standards of the American Chemical Society, are required to pass a course in German or to pass a German language examination.

The School of Social Science

The Fields of Concentration

Requirements for concentration are listed on the pages indicated.		<i>Page</i>
1. American Civilization		77
2. Anthropology		79
3. Economics		107
4. History		128
5. Latin America		136
6. Politics		163
7. Psychology		167
8. Sociology		174



Requirements for Ordinary and Honors Degrees

The minimum program for non-honors candidates in any regular or special field of concentration is defined in the requirements established for the several fields.

Students in the School of Social Science who are candidates for degrees with honors will, in addition to the designated requirements for the several fields, enroll also in senior research (99). Candidates for honors must have the approval of the appropriate department.

All candidates in the various fields of concentration are expected to complete their programs by electing the necessary number of courses as prescribed for each field.

The School of Creative Arts

The Fields of Concentration

Requirements for concentration are listed on the pages indicated.

	<i>Page</i>
1. Fine Arts	117
2. Music	142
3. Theatre Arts	182

In exceptional cases students may petition the School Council for permission to pursue a program of concentration combining any two of the regular fields.

Procedure for Admission to Concentration

All candidates are expected to apply for concentration through designated faculty representatives in the various fields. Candidates should arrange for interviews with these representatives, at which they can present evidence of capacity to pursue programs of concentration successfully. Specified performance and sight-reading requirements for concentration in music are listed under Music.

Requirements for Ordinary and Honors Degrees

At least seven courses are required for each field, with the additional requirement of the appropriate 99 course for honors candidates. Candidates for honors must have the approval of the appropriate department.



Courses of Instruction

The courses of instruction under the faculty of arts and sciences are listed below. All courses meet for three hours a week unless the course description indicates otherwise. The presence of "a" in the course number indicates a half course given in the Fall term; "aR" indicates an identical course given in the Spring term; "b" indicates a half course given in the Spring term; "bR" indicates an identical course given in the Fall term; the use of "c" after a course number indicates that the course is administered as a half course meeting throughout the year. The designation "H" indicates a course given in Israel, under the Jacob Hiatt Institute.

Half courses normally carry three credits and full courses, six. Exceptions are noted under the individual course descriptions. Additional credits are given for laboratory hours, as indicated in the course descriptions.

Students may take either half of a whole course for credit with the approval and consent of the course instructor, the faculty adviser and the registrar, on forms obtained at the Office of the Registrar. However, it should be noted that neither the 1 nor the 2 course of any foreign language may be dropped with credit at midyear.

The University reserves the right to make any necessary changes in the offerings without prior notice.

American Civilization

Executive Committee: Associate Professor RAYMOND S. GINGER, *Chairman*; Professors MORTON KELLER, MARVIN MEYERS, JOHN P. ROCHE.

Staff: Professors LAWRENCE H. FUCHS, MAX LERNER; Assistant Professors JEROME COHEN, DAVID H. FISCHER.

Requirements for Concentration

A. Required of all Candidates: (a) American Civilization 97c; History 51a, 51b; (b) either American Civilization 100 or 102; (c) Senior Comprehensive Examination. The Comprehensive Examination will deal with diverse phases of the history of American civilization, and, to prepare for it, students should plan their programs carefully with their faculty adviser. Helpful courses can be found in many areas: American history, literature, social and political institutions, philosophy and religion, art.

B. Additional requirement for degrees with distinction: American Civilization 99.

AMERICAN CIVILIZATION 2. Contemporary American Life and Thought

An examination of the development of American values, character, and institutions. Analyzes dominant patterns of American behavior: family, sexual, religious, economic, political.

Mr. Fuchs

AMERICAN CIVILIZATION 60b. Social and Physical Mobility in American Life

The factors that influence mobility: demography, industrialization, ideology. Patterns of mobility: immigration westward movement, growth of cities, occupational specialization. Consequences of mobility.

Mr. Gitelman

AMERICAN CIVILIZATION 80bR. The United States since World War II

A detailed and intensive analysis of cultural, military, political, economic, and social events and trends.

Mr. Lerner

AMERICAN CIVILIZATION 97c. Junior Tutorial

Each student will pursue a program of reading in the important literature bearing on the character and history of American civilization.

Prerequisites: History 51a and 51b or permission of the Chairman.

Mr. Gitelman

AMERICAN CIVILIZATION 98c. Readings in American Civilization

Independent reading, research and writing on a subject of the student's interest, under the direction of a faculty supervisor.

Available to juniors and seniors with the permission of the Chairman. *Staff*

AMERICAN CIVILIZATION 99. Senior Research

Seniors who are candidates for degrees with distinction should register for this course and, under the direction of a faculty supervisor, prepare a thesis on a suitable topic.

Staff

AMERICAN CIVILIZATION 100. Senior Seminar

Seminar on the New Deal.

Prerequisites: History 154b or permission of the instructor.

Each student is expected to do research on a single topic, bringing to bear on it the methods and insights from the several disciplines. Instruction is on a collaborative basis, in small classes meeting weekly. *Messrs. Ginger and Keller*

***AMERICAN CIVILIZATION 101b. Education and American Society**

A study of the interaction between the American educational system and the going American social structure, attitudes and philosophies. Intensive reading in Rousseau, Jefferson, Horace Mann, William James, John Dewey, Thorstein Veblen, Irving Babbitt and the current critics.

AMERICAN CIVILIZATION 170b. Americans Overseas

The spread of American values abroad from 1898 to the Peace Corps. Problems of intercultural contact and conflict for Americans in Asia, Europe, Latin America.

Mr. Fuchs

AMERICAN CIVILIZATION 172a. The Presidency and the People

The presidency as a popular institution from the beginning to John F. Kennedy. The presidency as spokesman for democracy, as agent of social change, as moral leader, as educator; the limits of presidential power in a democracy.

Mr. Fuchs

The following courses offered in 1964-65 will also be appropriate in meeting requirements for concentration in American Civilization:

ECONOMICS 20a. American Labor History *Mr. Gitelman*

ECONOMICS 20b. Industrial Relations *Mr. Gitelman*

ECONOMICS 34a. Government: Expenditures and Taxation *Mr. Hartman*

ECONOMICS 54bR. Government and Business in the United States *Mr. Robinson*

ECONOMICS 120a. Labor Economics and Labor Policy *Mr. Gitelman*

ENGLISH 8a. American Literature from 1832 to 1900 *Mr. Hindus*

ENGLISH 9b. American Literature from 1900 to 1964 *Miss Syrkin*

ENGLISH 62b. The American Lyric *Mr. Grossman*

ENGLISH 108a. Tutorial in American Literature *Mr. Swiggart*

ENGLISH 160b. Whitman and Dickinson *Mr. Hindus*

FINE ARTS 122b. American Painting and Architecture *Mr. de Leiris*

HISTORY 51a,b. History of the United States *Mr. Meyers*

HISTORY 150b. Age of the Democratic Revolution, 1760-1830 *Messrs. Black and Fischer*

HISTORY 151a. American Colonial and Revolutionary History *Mr. Fischer*

HISTORY 151b. The New Republic *Mr. Fischer*

*Not to be given in 1964-65.

*HISTORY 152bR. Jacksonian Democracy	
HISTORY 154bR. Modern America	<i>Mr. Ginger</i>
HISTORY 156a,b. History of American Constitutional Law and Theory	<i>Mr. Levy</i>
HISTORY 157b. American Industrial Growth	<i>Mr. Ginger</i>
*HISTORY 159a. Race, Religion and Nationality in American History	
HISTORY 160a. American Education	<i>Mr. Fischer</i>
*HISTORY 162b. The American Liberal Tradition	
*HISTORY 163. American Intellectual History	
HISTORY 164a,b. History of American Political Institutions	<i>Mr. Keller</i>
NEJS 160a. American Jewish Social and Institutional History in the Nineteenth Century	<i>Mr. Halpern</i>
NEJS 160b. American Jewish Social and Institutional History in the Twentieth Century	<i>Mr. Halpern</i>
POLITICS 21a. President and Congress	<i>Mr. Goldsmith</i>
POLITICS 21b. American Political Parties	<i>Mr. Goldsmith</i>
POLITICS 170a. American Political Thought	<i>Mr. Roche</i>
SOCIOLOGY 115b. Sociology of the American Churches	<i>Mr. Sobel</i>
*SOCIOLOGY 117b. Sociology of Work and Occupations	
SOCIOLOGY 127b. Health and Society	<i>Mr. Zola</i>
THEATRE ARTS 125a,b. History of the American Drama	<i>Mr. Matthews</i>
AMERICAN LITERATURE	
<i>See course offerings under English and Comparative Literature.</i>	

Anthropology

Professor ROBERT A. MANNERS, *Chairman*; Professor HELEN CODERE; Associate Professor JOEL M. HALPERN; Assistant Professors GEORGE L. COWGILL, DAVID KAPLAN (*Student Adviser*), BENSON SALER, ARNOLD STRICKON, ALEX WEINGROD; MR. KARL REISMAN, MRS. MARGUERITE S. ROBINSON.

Requirements for Concentration

A. Required of all Candidates: Anthropology 1a and 1b, 128a. Select one half course from the following: Anthropology 11a, 13bR, 14a, 16b, 101b, 120b, 121b, 123a, 124a, 125b, 144b, 148b, 183a.

B. Elective Courses: Concentrators must elect the equivalent of three full courses from those listed in the departmental offerings, and the equivalent of any full course offered by the School of Social Science that has been approved by the faculty adviser.

*Not to be given in 1964-65.

C. Additional requirement for degrees with distinction: Anthropology 99.

D. Those planning to go on to graduate work should consult carefully with their adviser regarding course selections. Where prerequisites are listed, they must be fulfilled satisfactorily before enrollment in the stipulated course, except under extraordinary circumstances with permission of the Chairman of the Department.

Primarily for Undergraduates

ANTHROPOLOGY 1a. Introductory Anthropology

General introduction to anthropological subject matter and concepts: prehistoric development of culture and of human evolution.

Section 1: *Mr. Cowgill*

Section 2: *Mr. Strickon*

ANTHROPOLOGY 1aR. Introductory Anthropology

Mr. Kaplan

ANTHROPOLOGY 1b. Introductory Anthropology

General introduction to anthropological subject matter and concepts: ethnography and social anthropology. Normal continuation of Anthropology 1a.

Section 1: *Miss Codere*

Section 2: *Mr. Strickon*

ANTHROPOLOGY 1bR. Introductory Anthropology

Mr. Kaplan

ANTHROPOLOGY 11a. Anthropology and the Problems of Developing Areas

An analysis of the social, economic and cultural forces at work in selected developing countries and the impact of western civilization in these areas.

Mr. Halpern

ANTHROPOLOGY 13bR. Africa and the Modern World

An intensive survey of contemporary socio-economic, political and cultural problems in the major areas of Africa, south of the Sahara.

Mr. Manners

*ANTHROPOLOGY 14a. The Negro in the New World

The background and history of slavery. The Negro in the United States and selected areas of the Caribbean and Latin America in the post-slavery period.

*ANTHROPOLOGY 16b. The American Indian

A survey of the peoples and cultures of aboriginal North America.

*ANTHROPOLOGY 32a. The Ethnology of Israel

An analysis of contemporary Israeli communities and national social systems. Emphasis is placed upon the historic development of Israeli society, ethnic group organization, and general processes of social and cultural change.

ANTHROPOLOGY 96a and b. Readings in Anthropology

Mr. Manners

ANTHROPOLOGY 99. Senior Research—Honors

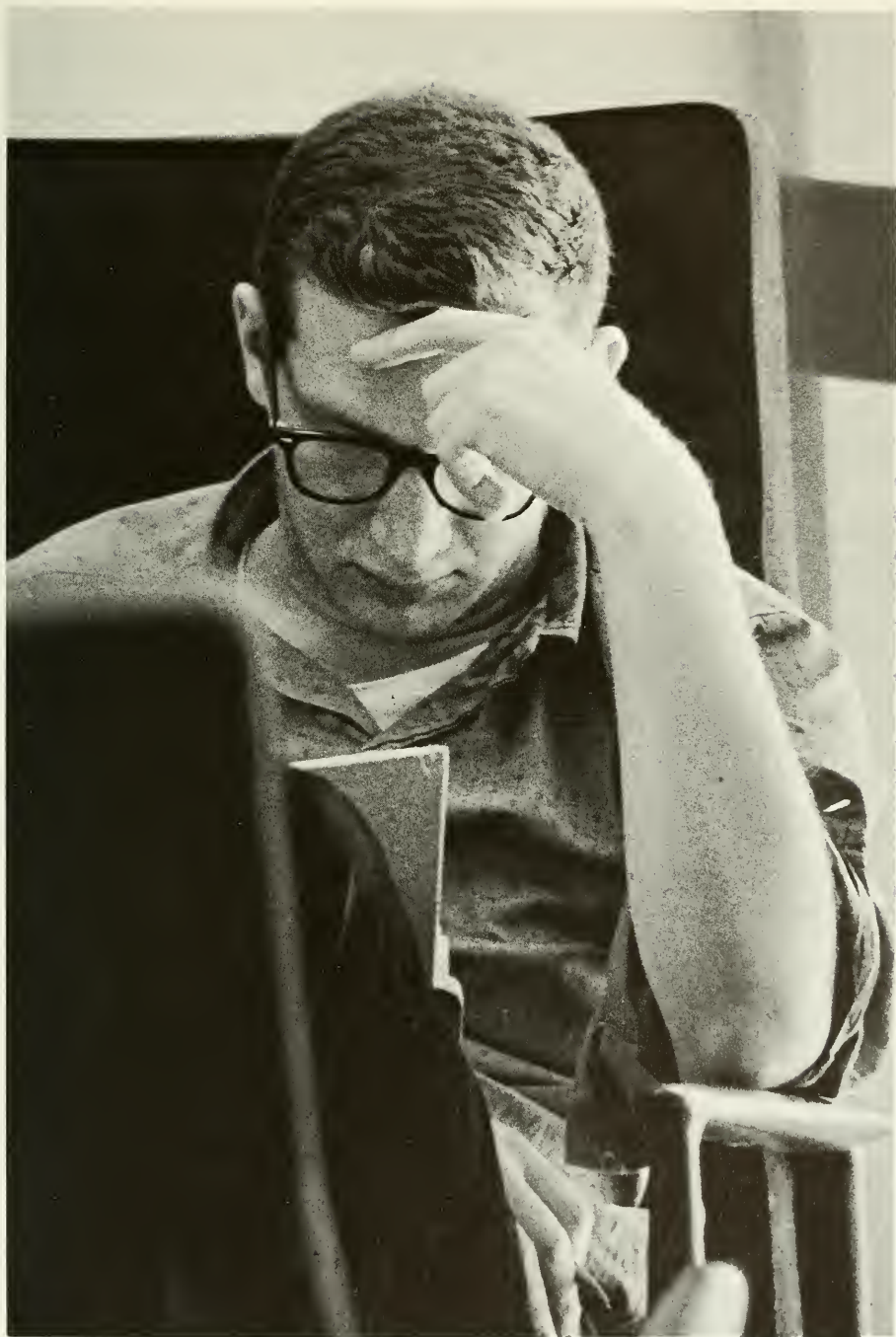
Mr. Manners

For Graduates and Undergraduates

Undergraduates will be admitted to any course above 115 only with permission of the instructor.

*ANTHROPOLOGY 101b. Peoples and Cultures of the Caribbean

*Not to be given in 1964-65.



ANTHROPOLOGY 102a. Anthropological Linguistics I

Training in the recording and analysis of spoken languages. Consideration of some major theories of language. Role of language in nature and culture.

Mr. Reisman

ANTHROPOLOGY 102b. Anthropological Linguistics II

Historical relations among languages. Linguistic evidence in the study of prehistory. Language contact. Study of speech communities and ethnography of speaking. Semantic analysis. Expressive language, paralinguistics, kinesics, speech surrogates.

Mr. Reisman

***ANTHROPOLOGY 103a. Language and Culture**

Language and thought; speech differences within societies; processes of change; expressive language and poetics; problems of translation; extension of linguistic methods to other modes of communication. No previous training in linguistics is necessary.

***ANTHROPOLOGY 104b. Primitive Art**

An introduction to art forms and their social meaning in preliterate societies.

ANTHROPOLOGY 105b. Physical Anthropology

An introduction to the major fields of physical anthropology; human evolution, genetics, anatomy, and modern views of race.

Mr. Cowgill

ANTHROPOLOGY 106bR. Primitive Religion

An exploration of belief and behavior in societies of non-literate peoples with reference to theories concerning the origins and functions of religion.

Mr. Saler

***ANTHROPOLOGY 107a. Applied Anthropology**

An examination of the theory and practice of directed social change. Case material will be drawn from technical assistance, village development, mental health and other programs.

ANTHROPOLOGY 108b. Research Seminar in Modernization and Modernization Movements

A comparative analysis of programs of economic, political, and social reform. Emphasis is placed upon national modernization programs, particularly as they become articulated within local village communities. Materials will be drawn from Asia, India, the Middle East, and Latin America.

Mr. Weingrod

***ANTHROPOLOGY 109a. Archeological Methods**

An introduction to archeological methods, including field and laboratory procedures; scientific apparatus useful in detection, dating, and analysis of prehistoric materials; problems in the processing and presentation of archeological data; and the nature of archeological theory.

***ANTHROPOLOGY 110a. Old World Archeology**

Development of prehistoric cultures of Eurasia, Africa, and Oceania from Pleistocene hunting and gathering cultures to the emergence of Bronze Age civilizations.

*Not to be given in 1964-65.

***ANTHROPOLOGY 111b. New World Archeology**

A survey of prehistoric and early historic native cultures of North, Middle and South America. The content and development of these cultures will be presented both in time-space perspective and from the point of view of their relevance for culture theory.

ANTHROPOLOGY 112b. Folk Literature and Music

Geographical and structural analysis of forms, of verbal art; proverb, myth, folktale, etc. Discussion of their role in specific social institutions and in every-day speech behavior. Problems of literature in colonial areas and emerging nations. Examination of various approaches to, and problems of, ethnomusicology. Selected musical styles and forms looked at geographically, structurally, and in their relation to specific areas of social life.

Mr. Reisman

***ANTHROPOLOGY 114a. Origins of Early Civilizations of the World**

The development of the earliest food-producing communities and the rise of the earliest civilizations of the Old and New World, based on archeological data. The emphasis is comparative and theoretical.

***ANTHROPOLOGY 115a. Origins of the State**

A discussion of the origins and forms of the political organization of primitive states and early irrigation civilizations and of selected theories of the origin of the state.

ANTHROPOLOGY 116a. Study of Primitive Economies

Economic institutions of nonindustrial societies.

Mr. Kaplan

ANTHROPOLOGY 118b. Civilizations of Middle America

Development of pre-Hispanic cultures of Middle America from the earliest agricultural settlements through Olmec, Teotihuacan, and Classical Maya to the emergence of the Aztec state.

Mr. Cowgill

ANTHROPOLOGY 119a. Modern Cultures

Seminar on problems and limitations of anthropological analysis of modern cultures; the community study method reviewed. Intensive study of cases from contemporary anthropological materials.

Messrs. Manners and Weingrod

*Not to be given in 1964-65.



ANTHROPOLOGY 120b. Modern Cultures of Middle America

Contemporary Indian and Ladino societies.

Mr. Saler

***ANTHROPOLOGY 121b. Civilizations of South America**

Development of pre-Hispanic cultures of the Andes from the first agricultural settlements to the Inca empire.

***ANTHROPOLOGY 123a. Peoples and Cultures of Native South America**

A survey of the aboriginal cultures of South America. Representative cultures will be used in the elucidation of comparative, structural, and historical problems.

ANTHROPOLOGY 124a. Folk and Peasant Cultures of Post-Conquest South America

The course will concentrate upon rural communities of peasants, farmers, and rural wage laborers in colonial and modern South America. Communities will be analysed from the point of view of internal organization and relations to the nations of which they are a part.

Mr. Strickon

ANTHROPOLOGY 125b. Peoples and Cultures of India*ANTHROPOLOGY 128a. Social Organization**

Theories of social organization, the inter-relations of social institutions, current anthropological methods of interpretation and analysis.

Mr. Weingrod

ANTHROPOLOGY 128b. Social Organization

This course, a continuation of 128a, will emphasize structural analysis. Designed primarily for advanced undergraduate and graduate students.

Mrs. Robinson

***ANTHROPOLOGY 130b. Cultural Evolution**

This course deals with the general evolution of culture and its technological bases and with the adaptations of cultures to particular natural and cultural environments.

***ANTHROPOLOGY 135b. Nationality and Culture Change**

Explores the relationship between the cultural concept of nationality and the processes of economic development in communist and other societies.

ANTHROPOLOGY 140a. Primitive, Political and Legal Institutions

Politics, government, law, crime, and warfare in primitive societies.

Miss Codere

ANTHROPOLOGY 144b. Peoples and Cultures of the Mediterranean

A comparative analysis of contemporary rural peoples in the Mediterranean region (Europe, North Africa, Middle East) and their relationships to urban settings.

Messrs. Weingrod and Halpern

ANTHROPOLOGY 147b. Cultures of Eastern Europe and the Soviet Union

Social organization, religion, class structure, and other topics dealing with the various ethnic groups in Eastern Europe and the U.S.S.R., both past and present. Agricultural, nomadic and urban societies in this area, including central Asia, will be studied.

Mr. Halpern

*Not to be given in 1964-65.

***ANTHROPOLOGY 148b. Cultures of Southeast Asia**

Survey of civilizations and tribal peoples in the area between India and China. Emphasis on cultural inter-relationships in the framework of both historical and contemporary problems.

ANTHROPOLOGY 152a. Culture and Personality

An examination of the relationships between sociocultural systems and individual psychological processes with a critical evaluation of selected theories and studies bearing on this problem. *Mr. Saler*

ANTHROPOLOGY 155a. Proseminar in Anthropological Method and Theory: I

Analysis of representative classics in anthropology.

Miss Codere and Mr. Reisman

ANTHROPOLOGY 155b. Proseminar in Anthropological Method and Theory: II

The development of anthropological theory, major present-day trends and their relation to problems of research. *Mr. Kaplan*

ANTHROPOLOGY 159b. Tribe and Nation-State in Africa

Seminar on the background and problems of independence in selected African areas. *Mr. Manners*

ANTHROPOLOGY 160b. Seminar in World View

Cross-cultural explorations of world views. Emphasis is on the importance of understanding the cognitive categories of the peoples whose cultures anthropologists study. *Mr. Saler*

ANTHROPOLOGY 170b. Culture Change

Selected case studies and theories bearing on the problem of change in culture and society. *Miss Codere*

ANTHROPOLOGY 180b. Seminar in Cultural Ecology

The seminar will be used to analyze and criticize various theories of cultural ecology and to apply cultural ecological concepts to specific research problems. *Mr. Strickon*

ANTHROPOLOGY 182a. Research Procedures in Anthropology

An introduction to the use of statistics and related techniques in anthropological research, emphasizing non-parametric methods and cross-cultural sampling. *Mr. Cowgill*

***ANTHROPOLOGY 183a. Cultures of the Far East**

China and Japan, stress on their contemporary cultures in historical perspectives; considers problems of evolution and development in a context of diverse influences.

***ANTHROPOLOGY 184b. Infra-human Social Behavior**

An exploration of social behavior in phylogenetic perspective.

*Not to be given in 1964-65.



Primarily for Graduate Students

(See Graduate School Catalog for course descriptions)

ANTHROPOLOGY 202a and b. Graduate Seminar in Anthropology

Messrs. Halpern and Reisman

ANTHROPOLOGY 270. Readings and Research in Archeology *Mr. Cowgill*

ANTHROPOLOGY 271. Readings and Research in Linguistics *Mr. Reisman*

ANTHROPOLOGY 274. Advanced Readings in Method and Theory *Mr. Kaplan*

ANTHROPOLOGY 275. Guided Comparative and Historical Research *Mr. Weingrod*

ANTHROPOLOGY 276. Readings and Research on Cultures of Hunters and Gatherers

Mr. Saler

ANTHROPOLOGY 285. Readings and Research in African Cultures *Mr. Manners*

ANTHROPOLOGY 286. Readings and Research in Asian Cultures *Mr. Halpern*

ANTHROPOLOGY 287. Readings and Research in North American Indian Cultures

Miss Codere

ANTHROPOLOGY 288. Readings and Research in South American Indian Cultures

Mr. Strickon

ANTHROPOLOGY 290. Readings and Research in Cultures of the Caribbean

Mr. Reisman

ANTHROPOLOGY 291. Readings and Research on Ibero-America *Mr. Strickon*

ANTHROPOLOGY 292. Readings and Research on European Communities *Mr. Halpern*

ANTHROPOLOGY 293. Comparative Agrarian Societies *Messrs. Kaplan, Strickon, Halpern, Saler, Weingrod*

ANTHROPOLOGY 299. Anthropological Colloquium *Staff*

ANTHROPOLOGY 400. Dissertation Research *Staff*

BACTERIOLOGY

See Biology 32a.

Biochemistry

Professor NATHAN O. KAPLAN, *Chairman*; Professors ABRAHAM GOLDIN, WILLIAM P. JENCKS, LAWRENCE LEVINE, WILLIAM F. LOOMIS; Associate Professors ROBERT H. ABELES, GERALD D. FASMAN, LAWRENCE GROSSMAN, MARY ELLEN JONES, JOHN M. LOWENSTEIN, FARAHE MALOOF, GORDON H. SATO, MORRIS SOODAK, HELEN VAN VUNAKIS; Assistant Professors MARVIN GOLD, THOMAS C. HOLLOCHER, JR., WILLIAM T. MURAKAMI.

BIOCHEMISTRY 99. Research for Undergraduates

Prerequisite: Approval of department.

Mr. Soodak and Staff

For Undergraduate and Graduate Students

BIOCHEMISTRY 100a. Introductory Biochemistry

Chemistry and metabolism of compounds of biological importance, introduction to enzyme reactions, energy metabolism, cellular function and differentiation.

Prerequisite: Chemistry 25a,b.

Four classroom hours a week.

Messrs. Soodak, Loomis and Kaplan

BIOCHEMISTRY 101. Advanced Biochemistry

A discussion of enzyme reactions including energetics, kinetics, and reaction mechanism. Metabolism of carbohydrates, lipids, amino acids, nucleic acids, vitamins and coenzymes, hormones and inorganic substances. Coupled enzyme reactions, such as oxidative phosphorylation, and the synthesis of macromolecules such as glycogen, protein and the nucleic acids.

Prerequisites: Chemistry 25a,b, Biochemistry 100a or their equivalent. Some background in elementary physical chemistry is recommended but is not required.

Miss Jones and Staff

For Graduate Students

(See Graduate School Catalog for course descriptions)

BIOCHEMISTRY 200a and b. Biochemistry Techniques

Mr. Levine and Staff

BIOCHEMISTRY 201. Physical Biochemistry and Radiobiology

Mr. Hollocher and Staff

BIOCHEMISTRY 202b. Chemistry of Enzyme—Catalyzed Reactions

Mr. Jencks

BIOCHEMISTRY 203a. Metabolic Regulation

Mr. Lowenstein

*BIOCHEMISTRY 204b. Metabolism in Relation to Function

*BIOCHEMISTRY 205a. Biochemical Genetics

*BIOCHEMISTRY 206a. The Nucleic Acids

*BIOCHEMISTRY 207a. The Biochemistry of Malignancy

*BIOCHEMISTRY 208b. Comparative Biochemistry

*BIOCHEMISTRY 209b. Physiology of the Mammalian Cell

*BIOCHEMISTRY 210a. Protein Chemistry

*Not to be given in 1964-65.

- *BIOCHEMISTRY 212a. Neurochemistry
- *BIOCHEMISTRY 214a. Biochemistry of Viruses
- *BIOCHEMISTRY 215b. Structure and Functional Specificity of Macromolecules
- *BIOCHEMISTRY 216b. Biochemical Aspects of Differentiation and Growth
- BIOCHEMISTRY 217b. Nucleic Acids *Messrs. Gold and Grossman*
- *BIOCHEMISTRY 218a. Biochemical Studies with Mammalian
Viruses and Cultured Cells
- *BIOCHEMISTRY 219b. Selected Topics on Enzyme Action
- *BIOCHEMISTRY 220a. Biochemical Basis of Chemotherapy
- *BIOCHEMISTRY 221b. Biochemical Processes involving Hemes
- BIOCHEMISTRY 222a. Naturally Occurring Small Peptides and Proteins
Miss Van Vunakis and Mr. Fasman
- *BIOCHEMISTRY 223a. Structure Metabolism and Function of Hormones
- *BIOCHEMISTRY 224a. Immunochemistry
- BIOCHEMISTRY 225a. Biochemical Genetics *Messrs. Kaplan and Levine*
- BIOCHEMISTRY 400. Biochemical Research Problems *Staff*

Biology

Professor EDGAR ZWILLING, *Chairman*; Professors HERMAN T. EPSTEIN, MARTIN GIBBS, ALBERT KELNER, MAURICE SUSSMAN; Associate Professor JEROME A. SCHIFF; Assistant Professors CHANDLER FULTON, ATTILA O. KLEIN, ELIZABETH MACLEAN, GJERDING OLSEN (*Student Adviser*), PHILIP A. ST. JOHN, MIRIAM F. SCHURIN; DR. CAROL G. KONRAD.

Requirements for Concentration

A. Advanced Standing: Credit for Biological Science 1 or Biology 10 can be given upon successful completion of the Advanced Placement Examination with a grade of 3, 4, or 5. In order to concentrate in Biology, however, any such candidate must also pass a departmental examination which is equivalent to that given in Biology 10.

Entering students are eligible to receive advanced standing for Biology 10 upon successful completion of a departmental examination; the approval of the instructor, the biology staff and the Administrative Committee is required.

A student is eligible for advanced standing in *any course* in the Biology Department if he is (a) recommended for advanced standing by the staff member teaching the course in question and (b) if this recommendation is approved by the biology staff. Minimum requirement is the satisfactory passing of an examination equivalent to the final examination normally administered for the course for which advanced standing is requested. (See Page 41, petitions.)

B. Required of All Candidates: Biology 10, 30a, 31b, 40b; Chemistry 10a,b, 25a,b; Mathematics 10 or its equivalent; Physics 10 or 11 and 19c.

C. Elective Courses: All candidates must select two half courses from the following: Biology 21a, 30b, 32a, 33b, 34a, 35b, 41b; Biology courses numbered between 100 and 199; Biochemistry 100a; Chemistry 30a, 41a,b.

*Not to be given in 1964-65.

D. Candidates for distinction are required to present to the Biology staff, at the beginning of their senior year, a proposed honors program. This may include laboratory research (under Biology 99), library research, a comprehensive program of appropriate additional undergraduate and graduate courses, or any combination of these. This honors program must be approved by the staff at the beginning of the senior year and must be successfully completed by the student in order to obtain distinction in Biology.

E. Students taking Biology 99 may receive from six to nine credits per year for this course. The number of credits will be determined by the research supervisor of the 99 course and the Department Chairman. In general, any senior who is taking Biology 99 is eligible for a four-course load during the year when he is taking Biology 99. A satisfactory written report including the results of an independent investigation is required by the Department.

F. Satisfactory grades must be maintained in all Biology courses offered for concentration, and no more than one D will be allowed in any other course offered toward the requirement in this Department.

Primarily for Undergraduates

BIOLOGICAL SCIENCE 1

This course emphasizes the fundamental chemical and physical properties common to living organisms and their parts. A detailed study of cell structure will prepare the student for a rigorous analysis of the chemical machinery of the cell, including aspects of energetics and synthesis, leading to an understanding of modern concepts of inheritance and the origin of variability. The interactions of cells in forming organisms and of organisms with one another and with their environment, will be analyzed by a study of the physiological processes underlying responsiveness, reactivity, and reproduction. The course will close with a consideration of current, unresolved problems that confront the biologist and of which the informed citizen should be aware.

Two lectures and one discussion section a week. *6 credits for year.*

Students may elect, in lieu of the discussion section, a three-hour laboratory section a week. Under exceptional circumstances, Biological Science 1, passed with an honor grade, may be counted as fulfilling the requirements in General Biology in the several fields of concentration in the School of Science. Premedical students should take Biology 10. Students who have taken the laboratory and who have obtained a grade of B or better may substitute this course for Biology 10 to meet the concentration requirements in Biology.

This course cannot be used to satisfy medical school requirements.

Messrs. Olsen and St. John

BIOLOGY 10. General Biology

Introduction to the more important principles of biology. This course is a prerequisite for concentration in Biology and for most courses offered in Biology. In general, students will be required to have had a course in chemistry prior to enrolling in Biology 10.

Prerequisite: Chemistry 10.

Three classroom and four laboratory hours a week. *8 credits per year.*

Laboratory fee: \$10 per semester.

Messrs. Klein, Schiff, and Staff

***BIOLOGY 21a. Intermediate Zoology: Biology of the Invertebrates**

Classification, morphology, distribution, life history, ecology, and economic importance of the invertebrate phyla. Field trips by arrangement.

Three classroom and three laboratory hours a week. *4 credits*.

Laboratory fee: \$15.

BIOLOGY 30a. Principles of Genetics

An intensive consideration of the gene, from its development as biology's most abstract concept to contemporary studies of its molecular nature and their consequence. Lectures, discussions of original research papers, and experiments will be intermixed to display the operational basis on which the gene theory rests.

Prerequisites: Biology 10 and Chemistry 25a,b.

Three classroom and three laboratory hours a week. *4 credits*.

Laboratory fee: \$15.

Mr. Fulton

BIOLOGY 30b. Intermediate Genetics

Synthesis of molecular genetics with modern ideas in integrative genetics and of evolution, with the aim of giving students insights which might aid their understanding of man and his culture. Biology 30a and 30b together present a balanced introduction to modern genetics. Students majoring in fields outside of science welcomed.

Prerequisite: Biology 30a. This requirement will be dropped for graduate students who may be expected to review basic genetics by independent study—and undergraduate students who satisfy the instructor of their serious interest and capability.

Three classroom hours a week.

Mr. Kelner

BIOLOGY 31b. Cellular Physiology and Biochemistry

Basic biological problems at the cellular level. Chemical composition of cells. Intracellular organization of enzymes, functions of nucleus, cytoplasm, mitochondria, and microsomes; membrane permeability.

Prerequisites: Biology 30a; Chemistry 25a,b.

Three classroom hours a week.

Messrs. Klein and Schiff

BIOLOGY 32a. General Microbiology

An introduction to the biology (*i.e.*, genetics, physiology, morphology, and development) of primitive organisms, including the viruses, bacteria, yeasts, molds, and protozoa. The laboratory is designed to give the student a grounding in bacteriological techniques.

Prerequisite: Chemistry 25a,b (may be taken concurrently).

Three classroom and four laboratory hours a week. *4 credits*.

Laboratory fee: \$15.

Mr. Sussman

***BIOLOGY 33b. Algal Microbiology**

An introduction to the biology of plant-like microorganisms, their physiology, biochemistry and development. Particular emphasis will be placed on unique aspects of metabolism, including photosynthesis, nitrogen fixation, etc.

Prerequisite: Chemistry 25a,b (may be taken concurrently).

Three classroom and four laboratory hours a week. *4 credits*.

Laboratory fee: \$15.

*Not to be given in 1964-65.

BIOLOGY 34a. Principles of Evolution

Concepts of mechanisms of evolution; evidence that it has occurred, courses that it has taken, and conditions under which evolution may have taken place.

Prerequisite: Biology 10 or Biological Science 1.

Three classroom hours.

Mrs. Schurin

BIOLOGY 35b. Descriptive Anatomy of the Vertebrates

An intensive comparative study of the anatomy of the principal organ systems of vertebrate animals, with detailed laboratory study of representative forms.

Three classroom and six laboratory hours a week. *5 credits.*

Laboratory fee: \$15.

Mr. Olsen

BIOLOGY 40b. Developmental Biology

A consideration of developmental events in various organisms, with emphasis on the mechanisms by which organisms achieve an orderly progression of changes during their life cycles.

Prerequisite: Biology 31b.

Three classroom and three laboratory hours a week. *4 credits.*

Laboratory fee: \$15.

Mr. Zwilling

***BIOLOGY 41b. Vertebrate Physiology**

The basic principles of the physiology of the vertebrates with special reference to mammals. Examples of contemporary research will demonstrate the methods of attack used in physiological investigations.

Prerequisites: Chemistry 25a,b (may be taken concurrently); Biology 31b.

Three classroom and three laboratory hours a week. *4 credits.*

Laboratory fee: \$15.

BIOLOGY 98a or b. Readings in Biology

This course will be open to exceptionally well-qualified students to serve as an introduction into the research literature of biology.

Admission only with the permission of the department. This is a one-semester course that can be taken either in the Spring or Fall term for a maximum of 3 credits.

Staff

BIOLOGY 99. Senior Research

This course will involve the student in an independent research project conducted under the supervision of a staff member. It will serve as an intensive introduction to specific methods of biological research. The experimental findings are to be presented in writing to the department for approval.

Admission only to students with an honor record in Biology and with the permission of the Department and of the staff member proposed as the research supervisor.

6 to 9 credits by arrangement with the instructor and staff.

Staff

For Undergraduate and Graduate Students

Admission to any of the following courses in Biology requires the consent of the instructor.

*Not to be given in 1964-65.

BIOLOGY 101a. General and Comparative Physiology of Animals

After an introduction to acquaint students with current experimental findings using animal cells and tissues, the course will turn to an intensive comparison of physiological processes operating in both invertebrates and vertebrates. Particular emphasis will be placed upon coordinating and integrating mechanisms.

Prerequisites: Chemistry 25a,b, Biology 31b (may be taken concurrently).

Three classroom and three laboratory hours a week. *4 credits.*

Laboratory fee: \$15.

Mr. Olsen

***BIOLOGY 101b. Comparative Physiology of Plants**

A discussion of those areas of physiology and biochemistry to which plants lend themselves as experimental objects. Conspicuous examples are photosynthesis, photomorphogenesis, nitrogen fixation, and the biosynthesis of natural products such as anthocyanins, flavonoids, isoprenoids, phenols, terpenes, etc.

Prerequisites: Chemistry 25a,b, Biology 31b (may be taken concurrently).

Three classroom hours a week.

BIOLOGY 102a. Gene Structure and Function

The development of the gene concept. Contemporary investigations of the nature of genetic material and its involvement in cell structure and function.

Prerequisite: Biology 30a.

Three classroom hours.

Mr. Fulton

BIOLOGY 103b. Physical Basis of Cell Function

Duplications of the physical parameters of cellular organization in the biochemical activities of cells. Starting from the properties of elements and water, there will be an examination of the interrelations of structure and function at the levels of (1) metabolic geography, (2) cellular activity, and (3) genetic control.

Prerequisites: Biology 30a, 31b; Physics 10 or 11; Chemistry 10a,b and 25a,b.

Three classroom hours a week.

Mrs. Schurin

BIOLOGY 104b. The Cellular Basis of Development

Phenomic variation and interaction at the cellular level will be considered. Developmental events in microbial cultures, morphogenetically complex Protista, Metazoa and Metaphyta will be analyzed in terms of the cellular and molecular mechanisms involved.

Three classroom hours.

Mr. Sussman

***BIOLOGY 105b. Invertebrate Physiology**

This course will deal with a comparative study of the physiology of receptor-effector and regulatory systems in the invertebrate animals. Nervous, digestive, endocrine, muscle, osmoregulatory, respiratory and circulatory functions will be considered.

Prerequisites: Biology 21a and Chemistry 25a,b.

Two lectures and six laboratory hours per week. *4 credits.*

Laboratory fee: \$15.

***BIOLOGY 106a. Developmental Plant Biology**

The physiology and biochemistry of morphogenetic events in the life cycle of higher plants. Differentiation and growth of organs examined in terms of

*Not to be given in 1964-65.

changing metabolic patterns. Results of modern experimental approaches such as cell, tissue and organ culture and radiation studies will be evaluated.

Prerequisites: Biology 31b (may be taken concurrently); Chemistry 25a,b; Biology 10.

Three classroom and three laboratory hours a week. *4 credits.*

Laboratory fee: \$15.

BIOLOGY 111a. Microbial Genetics

Fundamental principles of genetics as exemplified by modern research with microorganisms. Some informal laboratory experiments may be included.

Prerequisite: Biology 30a, or its equivalent; some background in microbiology equivalent to Biology 32a is advisable, but not required.

Three classroom hours a week.

Mr. Kelner

***BIOLOGY 120b. Advanced Microbiology**

Enrichment and isolation of representative bacteria. Discussion of the biology of these forms.

Prerequisites: Biology 31b, 32a; Chemistry 25a,b.

Two classroom hours; 4 laboratory hours a week. *4 credits.*

Laboratory fee: \$15.

BIOLOGY 124a. Virology

Biology of plant, animal and bacterial viruses.

Prerequisite: Biology 32a or the equivalent.

Three classroom hours.

Mr. Epstein

***BIOLOGY 131a. Problems in Animal Morphogenesis**

A discussion of problems concerning mechanisms of development of multicellular animals. The classical experiments of embryology will be re-evaluated by application of modern techniques of tissue dissociation, tissue cultures, etc., as well as by the original approaches.

Three classroom hours; laboratory to be arranged. *4 credits.*

Laboratory fee: \$15.

***BIOLOGY 141b. Physical Biology**

Physical methods; treatment of experimental data; physical aspects of vision and hearing; introduction to radiobiology and theoretical biology; forces involved in biological events.

Prerequisite: Satisfactory grades in full-year courses in Biology, Chemistry, Mathematics and Physics.

Three classroom hours.

BIOLOGY 145b. Optical Methods in Biology

Theory of image formation and resolution; lens aberrations; phase contrast, interference, polarization, X-ray and electron microscopy; optical rotation; spectrophotometry and related techniques; review of X-ray diffraction methods.

Prerequisite: Elementary work in Physics, Mathematics and Biology.

Two hours of lecture and one of demonstration per week.

Miss Maclean

*Not to be given in 1964-65.

BIOLOGY 150 or 150a & b. Physical and Mathematical Bases of Molecular Biology

The application of principles of physics, physical chemistry and mathematics to problems of biological interest including thermodynamics, kinetics, photochemistry, radiochemistry, statistics and related numerical methods.

Prerequisites: Mathematics through calculus, some acquaintance with physics and physical chemistry. Students are advised to consult the instructor regarding prerequisites.

Three classroom hours each semester.

Mr. Epstein and Staff

Biology Colloquium

Presentations by staff members and guest lecturers on original investigations. Open to all undergraduate and graduate students of the Department. *No credit.*

Primarily for Graduates

(See Graduate School Catalog for course descriptions)

*BIOLOGY 200b.	Comparative Physiology	
*BIOLOGY 212a.	Cytogenetics	
*BIOLOGY 214b.	Experimental Methods in Microbial Genetics	
*BIOLOGY 222b.	Microbial Metabolism	
*BIOLOGY 223b.	Experimental Methods in Microbial Metabolism	
BIOLOGY 245a.	Selected Topics in Plant Metabolism	<i>Mr. Gibbs</i>
BIOLOGY 245b.	Selected Topics in Plant Metabolism	<i>Mr. Gibbs</i>
*BIOLOGY 400.	Research in Genetics and Microbiology	
BIOLOGY 401.	Research in Genetics and Microbiology	<i>Mr. Kelner</i>
*BIOLOGY 402.	Research in Microbiology and Physiology	
BIOLOGY 403.	Research in Genetics and Cytology	<i>Mrs. Schurin</i>
BIOLOGY 404.	Research in Physiology	<i>Mr. Olsen</i>
BIOLOGY 405.	Research in Invertebrate Development	<i>Mr. Fulton</i>
BIOLOGY 406.	Research in Plant Physiology	<i>Mr. Schiff</i>
BIOLOGY 407.	Research in Invertebrate Zoology	<i>Mr. St. John</i>
BIOLOGY 408.	Research in Differentiation and Genetics	<i>Mr. Sussman</i>
BIOLOGY 409.	Research in Vertebrate Development	<i>Mr. Zwilling</i>
BIOLOGY 410.	Research in Plant Physiology	<i>Mr. Klein</i>
BIOLOGY 411.	Research in Electron Microscopy	<i>Miss Maclean</i>
BIOLOGY 412.	Research in Plant Metabolism	<i>Mr. Gibbs</i>

Biology Option

To encourage students wishing to concentrate in Biology and to acquire the extra mathematical, physical, and chemical background needed for the area of biophysics, the Department offers an option which contains a reduced number of biology courses and an increased number of courses in the other science areas.

In addition to the introductory courses in each department, students will take: Biology 30a, 31b, 32a, 141b; Chemistry 25a,b, 41a,b; Mathematics 21 or 22; Physics 30a,b, 31a,b.

*Not to be given in 1964-65.

Students interested in this program will find it much to their advantage to be prepared to seek advanced standing which will permit them to take Chemistry 15a and to by-pass introductory biology and physics.

Chemistry

PROFESSOR SAUL G. COHEN, *Chairman*; Professors ORRIE M. FRIEDMAN, SIDNEY GOLDEN, ERNEST M. GRUNWALD, HENRY LINSCHITZ; Associate Professors PAUL B. DORAIN, JAMES B. HENDRICKSON, MYRON ROSENBLUM (*Student Adviser*), ROBERT STEVENSON; Assistant Professors ROBERT F. HUTTON, KENNETH KUSTIN (*Graduate Student Adviser*), PETER C. JORDAN, THOMAS N. MARGULIS, COLIN STEEL, THOMAS R. TUTTLE, JR.

Requirements for Concentration

Members of the classes of 1965 and 1966 may complete their Requirements for Concentration given below or the Requirements for Concentration given in the Brandeis University Catalog for 1962-63. The following requirements apply to members of the class of 1967 and the classes following.

A. Required of all Candidates: Chemistry 10a,b, and 11c or 15a, 25a,b, 30a or 30aR, 31b or 121b, 41a,b, 42a; Mathematics through Mathematics 20, 21 or 22; Physics 10 or 11. Chemistry 31b is not being given after the academic year 1963-64. Admission to Chemistry 15a is by permission of the Department of Chemistry. It is recommended that Chemistry 41a,b be taken in the junior year.

B. Additional requirements for candidates for degrees with distinction: (1) Chemistry 110b; (2) The equivalent of two half courses selected from advanced courses in Chemistry, Biochemistry or Physics or, with the approval of the Department of Chemistry, from other upper level offerings in the School of Science. Chemistry 99 or Biochemistry 99 may be used for partial fulfillment of this additional requirement.

C. If the courses selected in B (2) include two half courses in Chemistry or Biochemistry, this program will meet the standards for certification by the American Chemical Society.

D. See German requirement, Page 74.

Primarily for Undergraduates

CHEMISTRY 10a,b. General Chemistry

Fundamental principles of chemistry: properties of chemical systems, kinetic-molecular theory, chemical equilibrium, atomic structure and the periodic system of the chemical elements, electrochemistry.

All students taking Chemistry 10a,b are required to take Chemistry 11c concurrently.

Three classroom hours a week.

Messrs. Margulis and Jordan

CHEMISTRY 11c. General Chemistry Laboratory

Laboratory course to supplement Chemistry 10a,b which must be taken with Chemistry 10a,b.

One lecture and three laboratory hours per week, alternate weeks through the year. 2 credits.

Laboratory fee: \$10.

To be announced

CHEMISTRY 15a. General Chemistry

A one-semester course which may be taken instead of Chemistry 10a,b by students who have done well in a high school course in chemistry as demonstrated by scores in the College Entrance Examination or in a placement test.

Prerequisite: Permission of the Department of Chemistry.

Three classroom hours a week, one term. Four laboratory hours a week, one term. *4 credits.*

Laboratory fee: \$10.

Mr. Golden

CHEMISTRY 25a,b. Organic Chemistry

Structure, reactions, preparation and uses of the compounds of carbon. The laboratory will give experience in the important techniques of organic chemical practice and include synthesis of typical organic compounds.

Prerequisite: A satisfactory grade in any one of the following courses: Chemistry 10a,b or equivalent, Chemistry 30a or 30aR, Chemistry 31b.

Three classroom and one 4½-hour laboratory period a week. *9 credits.*

Laboratory fee: \$20.

Messrs. Stevenson and Rosenblum

CHEMISTRY 30a. Quantitative Analysis

Theoretical principles of quantitative chemical analysis dealing with gravimetric and volumetric procedures, acidimetry and alkalimetry, ionic equilibria, oxidation-reduction, electrochemical cells, iodimetry and iodometry, solubility products. Laboratory work will consist of a variety of analyses designed to develop the students' laboratory technique.

Prerequisites: Chemistry 10a,b or equivalent, and Mathematics 10 or 11 or equivalent.

Three classroom and six laboratory hours a week. *5 credits.*

Laboratory fee: \$10.

Mr. Grunwald

CHEMISTRY 30aR. General and Analytical Chemistry

This course is intended primarily for students who have completed Chemistry 15a.

Prerequisites: Chemistry 15a or equivalent and Mathematics 10 or 11 which may be taken concurrently.

Three lectures and six laboratory hours a week. *5 credits.*

Laboratory fee: \$10.

Mr. Kustin

CHEMISTRY 41a,b. Physical Chemistry

An introduction to the theoretical foundations of chemistry dealing with thermodynamics, kinetic theory of gases, real gases, solids, liquids, solutions, electrochemistry and chemical kinetics.

Prerequisites: Satisfactory grades in Chemistry 10a,b, or equivalent, 30a (or consent of instructor), Mathematics 20 or 21 or the equivalent and Physics 10 or 11.

Three classroom hours a week.

a) *Mr. Steel*

b) *Mr. Grunwald*

CHEMISTRY 42a. Physical Chemistry Laboratory

Basic measurements and techniques illustrating and applying physico-chemical principles; theory of errors, properties of gases, liquids and solutions, phase diagrams, electrochemistry, selected instrumental methods.

Prerequisites: Chemistry 30a (or consent of instructor), Chemistry 41a,b which may be taken concurrently.

One lecture, four laboratory hours each week. *3 credits.*

Laboratory fee: \$10.

Mr. Tuttle

CHEMISTRY 99. Undergraduate Research

Research assignment, which may include literature survey, independent laboratory work, and presentation of oral and written reports; weekly conferences with adviser.

Students must have completed the German requirements (see page 74) before registering for this course.

Prerequisite: Consent of Chemistry Department.

Hours and credits to be arranged.

Laboratory fee: \$10.

Staff

For Undergraduate and Graduate Students

Admission to any of the following courses in Chemistry requires the consent of the instructor.

CHEMISTRY 110b. Analytical Chemistry

Principles and techniques involved in modern chemical analysis. Application of modern instrumental methods to the study of chemical and physical processes. Techniques used include polarography, spectroscopy, chromatography.

Prerequisite: Chemistry 41a,b which may be taken concurrently.

Two classroom and six laboratory hours a week. *4 credits.*

Laboratory fee: \$10.

Mr. Steel

CHEMISTRY 121a. Inorganic Chemistry

Introduction to the principles of chemical binding; valence theory, periodic properties, molecular structures. Application to the chemistry of the lighter elements.

Inorganic synthesis and analysis; synthetic techniques include vacuum line, high temperature, non-aqueous and electrochemical preparations. Instrumental methods of analysis.

Prerequisite: Chemistry 41a,b or consent of instructor.

Three classroom hours a week, *3 credits*; six laboratory hours a week, *2 credits.*

Laboratory fee: \$10.

Mr. Kustin

CHEMISTRY 130a. Introduction to Organic Research

Systematic determination of structures of organic molecules utilizing micro-techniques and instrumental methods as a preparation for research. Some synthetic work in connection with degradations of unknowns will emphasize choice of reactions and conditions.

Prerequisite: Chemistry 25a,b.

Two classroom and two three-hour laboratory periods a week. *4 credits.*

Laboratory fee: \$10.

Mr. Hutton

CHEMISTRY 131a. Advanced Organic Chemistry

Stereochemistry, molecular rearrangements, kinetics and mechanisms of organic reactions.

Prerequisites: Satisfactory grades in Chemistry 25a,b and 41a,b or the equivalent. Chemistry 41a,b may be taken concurrently.

Mr. Cohen

CHEMISTRY 132b. Synthetic Methods

A survey of several newer organic reactions of theoretical and synthetic interest including a discussion of their application, scope, specificity and mechanism.

Prerequisites: Satisfactory grade in Chemistry 131a or the equivalent.

Mr. Rosenblum

CHEMISTRY 141a. Advanced Physical Chemistry

A unified introduction to chemical thermodynamics, statistical mechanics and elementary wave mechanics.

Prerequisites: Chemistry 41a,b or equivalent.

Mr. Tuttle

CHEMISTRY 141b. Advanced Physical Chemistry

Continuation of Chemistry 141a.

Prerequisite: Satisfactory grade in Chemistry 141a.

Mr. Tuttle

CHEMISTRY 144a. Chemical Crystallography

Introduction to chemical crystallography including descriptive crystallography; theory of symmetry; structure determination by means of X-ray, neutron and electron diffraction.

Prerequisite: Chemistry 41a,b or equivalent.

Mr. Margulis

CHEMISTRY 145b. Chemical Kinetics

Kinetics of homogeneous and heterogeneous chemical change.

Prerequisite: Satisfactory grade in Chemistry 41a,b or the equivalent.

Mr. Linschitz

Primarily for Graduate Students

(See Graduate School Catalog for course descriptions)

CHEMISTRY 200. Advanced Chemistry Laboratory

Staff

CHEMISTRY 221b. Advanced Inorganic Chemistry I

Mr. Kustin

CHEMISTRY 222b. Advanced Inorganic Chemistry II**CHEMISTRY 230b. Advanced Organic Chemistry****CHEMISTRY 231c. Selected Topics in Organic Chemistry**

Messrs. Stevenson and Hendrickson

CHEMISTRY 232b. Chemistry of Heterocyclic Compounds

Mr. Hendrickson

CHEMISTRY 233b. Chemistry of Alkaloids**CHEMISTRY 235a. The Chemistry of Natural Products I*****CHEMISTRY 236a. The Chemistry of Natural Products II****CHEMISTRY 241c. Selected Topics in Physical Chemistry**

To be announced

CHEMISTRY 243b. Statistical Thermodynamics

Mr. Jordan

CHEMISTRY 245b. Physical Organic Chemistry*CHEMISTRY 247a. Quantum Chemistry**

Mr. Golden

***CHEMISTRY 248b. Topics in Quantum Theory**

*Not to be given in 1964-65.

Chemistry Colloquium

Courses in Research

CHEMISTRY 400. Organic Chemistry	<i>Mr. Cohen</i>
CHEMISTRY 401. Organic Chemistry	<i>Mr. Stevenson</i>
CHEMISTRY 402. Organic Chemistry	<i>Mr. Friedman</i>
CHEMISTRY 403. Organic Chemistry	<i>Mr. Rosenblum</i>
CHEMISTRY 404. Organic Chemistry	<i>Mr. Hendrickson</i>
CHEMISTRY 405. Physical Chemistry	<i>Mr. Golden</i>
CHEMISTRY 406. Physical Chemistry	<i>Mr. Linschitz</i>
CHEMISTRY 407. Physical and Inorganic Chemistry	<i>Mr. Dorain</i>
CHEMISTRY 408. Physical Chemistry	<i>Mr. Tuttle</i>
CHEMISTRY 409. Physical and Inorganic Chemistry	<i>Mr. Kustin</i>
CHEMISTRY 410. Physical and Inorganic Chemistry	<i>Mr. Margulis</i>
CHEMISTRY 411. Physical Chemistry	<i>Mr. Steel</i>
CHEMISTRY 412. Physical and Physical Organic Chemistry	<i>Mr. Grunwald</i>
CHEMISTRY 413. Physical Chemistry	<i>Mr. Jordan</i>

CLASSICAL LANGUAGE AND LITERATURE

See Greek and Latin.

Classical and Mediterranean Studies

Professor CYRUS H. GORDON, *Chairman and Student Adviser*; Visiting Professor JOSEPH DE SOMOGYI; Associate Professors THALIA HOWE, DWIGHT W. YOUNG; Assistant Professors SETH G. BENARDETE, HARRY A. HOFFNER; DR. FREDERIC W. BUSH, MR. CLYDE C. SMITH, DR. J. PETER STEIN.

I. Requirements for Concentration in Classics

- A. Three full language courses in Greek and two in Latin, or three in Latin and two in Greek.
- B. One full course in Greek and/or Roman history.
- C. Two additional full courses in Greek and/or Latin.
- D. Junior tutorial (CMS 97c).

II. Requirements for Concentration in Classical Studies

- A. Three full language courses in Greek and two in Latin, or three in Latin and two in Greek.
- B. One full course in Greek and/or Roman history.
- C. Two additional full courses on Greco-Roman or Mediterranean art, archeology, geography, history, philosophy, drama or literature in translation.
- D. Junior tutorial (CMS 97c).

III. Requirements for Concentration in Mediterranean Studies

- A. Three full courses in any one language taught by the Department.
- B. Classical and Mediterranean Studies 60 and 103.
- C. Classical and Mediterranean Studies 102 or 104.
- D. Either Classical and Mediterranean Studies 105 or 106 or 108.
- E. One additional course on Mediterranean or Greco-Roman art, archeology, geography, history, philosophy, drama, literature or language.
- F. Junior tutorial (CMS 97c).

Candidates for degrees with distinction must include Classical and Mediterranean Studies 99.

GREEK 1. Introductory Greek

Grammar and readings in Xenophon.

Greek 1 is a full year course and may not be dropped with credit at mid-year. Mr. Stein

GREEK 2. Review and Rapid Reading of Simple Prose

Prerequisite: Greek 1, or appropriate placement score, or permission of instructor. Mr. Young

*GREEK 10. Readings in Philosophical and Historical Texts

GREEK 11. Intermediate Greek

Readings in epic literature.

First semester: Selections from Homer.

Second semester: Hesiod.

Prerequisite: Greek 2 or 10, or appropriate placement score, or permission of instructor. Mr. Benardete

GREEK 12. Advanced Greek

A number of classical tragedies will be selected with a view to avoid duplicating the students' previous readings.

Prerequisite: Greek 10 or 11, or permission of instructor. Mr. Benardete

*GREEK 13. Composition

*GREEK 14. Greek Pro-Seminar

LATIN 1. Introductory Latin

Grammar and readings in Caesar.

Latin 1 is a full year course and may not be dropped with credit at mid-year. Mr. Stein

LATIN 2. Review and Rapid Reading of Simple Prose

Prerequisite: Latin 1, or appropriate placement score, or permission of instructor. Mr. Stein

*Not to be given in 1964-65.

LATIN 10. Intermediate Latin

First semester: Readings in Livy and Tacitus.

Second semester: Readings in Roman comedy.

Prerequisite: Latin 2, or appropriate placement score, or permission of instructor. *Mrs. Howe*

LATIN 11. Lyric and Elegiac Poetry*LATIN 12. Advanced Latin**

Readings in Lucretius.

Prerequisite: Latin 10 or the permission of instructor. *To be announced*

LATIN 13. Composition**LATIN 14. Latin Pro-Seminar****Primarily for Undergraduates****CMS 4a. Pre-Classical Greek Art**

Greek painting, sculpture, and architecture from the Neolithic, through the Cretan-Mycenaean, Geometric, Orientalizing, and Archaic periods.

See Fine Arts 31a. *Mrs. Howe*

CMS 4b. Classical and Post-Classical Greek Art

Greek painting, sculpture, and architecture of the Fifth and Fourth Centuries, B.C., and the Hellenistic period.

See Fine Arts 31b. *Mrs. Howe*

CMS 5. Classical Greek Literature in Translation

An intensive study of the major Greek writers. Readings in epic poetry, the lyric poets, the classical and the main historians. The literature will be considered against a background of ancient thought and art.

See Humanities 5. *Mrs. Howe*

CMS 9. Literature of the Ancient Near East

First semester: The poetry of Mesopotamia, Anatolia and Ugarit. The myths and legends including the Epics of Gilgamesh, Kret and Aqhat.

Second semester: The literature of Pharaonic Egypt. The emphasis will be on the world's first prose *belles-lettres* starting with the Middle Kingdom novelettes such as *The Shipwrecked Sailor* and *The Romance of Sinuhe*, and developing into Late Egyptian stories such as *The Misadventures of Wenamon*.

Throughout both semesters the Near East contribution to classical European literature will be brought out. *Mr. Hoffner*

CMS 12. Selected Problems in Classical Greek Literature

In 1964-65 the central themes will be: Man, the City and the Gods.

First semester: *Oresteia*, *Prometheus Bound*, *Oedipus Tyrannus*, *Antigone*, *Oedipus at Colonus*, *Bacchae*.

Second semester: Herodotus and Thucydides.

See Humanities 10. *Mr. Benardete*

*Not to be given in 1964-65.

***CMS 60. History of the Ancient Mediterranean**

The cultural history of the area down to 1000 B.C.

Open to freshmen.

CMS 61. History of the Ancient Mediterranean

The cultural history of the area from 1000 B.C. to Alexander's Conquest reconstructed from the texts and monuments of Iran, Mesopotamia, Anatolia, Canaan, Egypt, and the Mediterranean. Emphasis will be placed upon the empires of Assyria and Persia as syntheses of the more ancient heritage, with special reference to the rise and fall of the Israelite monarchy.

Open to freshmen. No prerequisites.

Mr. Smith

CMS 67. Ancient Mediterranean Historiography

Studies of annals and historic writings in ancient Western Asia, Egypt, and Greece.

In 1964-65 the focus of attention will be the historiographic form, culminating in the Hebrew achievement, Herodotus, and other Greek historians.

Mr. Smith

CMS 68. History and Tradition of Early Christianity to 325 A.D.

An introduction to the fundamental sources relating to the emergence, development, spread, and diversification of pre-Nicene Christianity in their historical context, against the background of comparative religious texts and institutions, with special reference to Christianity's appropriation of the heritage of the ancient Near East.

Mr. Smith

CMS 97c. Junior Tutorial

Guided study for juniors concentrating in Classical and Mediterranean Studies.

Staff

CMS 99. Senior Seminar

Guided research for seniors concentrating in Mediterranean Studies.

Staff

For Undergraduate and Graduate Students

CMS 101. Egyptian History and Civilization

The cultural history of Pharaonic Egypt will be covered comprehensively by following the pattern established in Drioton and Vandier's *L'Egypte*. In addition, this course will feature workshop projects to induct the student into the essentials and current problems of Egyptology. During 1964-65 special attention will be devoted to interrelations between the Delta and Crete.

Mr. Gordon

CMS 102. Latin Sources Bearing on Interregional Mediterranean Problems*CMS 103. West Semitic Sources for the Common**

Background of Greek and Hebrew Civilizations

First semester: A fundamental training in Biblical Hebrew based on the linguistic analysis and cultural interpretation of Old Testament passages dealing with the heroic age of Israel.

*Not to be given in 1964-65.

Second semester: Phoenician and Minoan texts will be interspersed with the Hebrew readings.

Prerequisite: Open to upperclassmen and graduate students who have demonstrated aptitude in language and history. *Mr. Bush*

CMS 104. Hellenic Sources for the Common Background of Greek and Hebrew Civilizations

First semester: A fundamental training in Homeric Greek based on the linguistic analysis and cultural interpretation of selections from the *Iliad* and *Odyssey*.

Second semester: The Homeric readings will be supplemented with the study of Linear B tablets in Mycenaean Greek.

Prerequisite: Open to upperclassmen and graduate students who have demonstrated aptitude in language and history. *Mr. Hoffner*

CMS 105. Introduction to Sumero-Akkadian

In 1964-65 this course will be devoted to the script, grammar, and interpretation of the Sumerian texts of Gudea. The instruction will aim at inducting the student into the basic principles and current problems of Assyriology. *Mr. Gordon*

*CMS 106. Middle Egyptian

*CMS 107. Late Egyptian

*CMS 108. Ugaritic

CMS 109. Akkadian Documents of the Amarna Age

Grammar, script, and interpretation of tablets from Nuzu, Ugarit, and Amarna. Students may begin their Akkadian with this course but those with some previous knowledge may take this course for a review of the fundamentals as well as widening their familiarity with cuneiform texts. *Mr. Bush*

*CMS 110. Assyrian Royal Inscriptions

*CMS 111. The Pyramid Age

*CMS 120. Colloquial Arabic

CMS 122. Arabic within the Framework of Comparative Semitics

A beginner's course in classical Arabic for students studying other Semitic languages and interested in comparative linguistics. *Mr. Bush*

*CMS 131. Pro-Seminar: Greco-Hebrew Martial Poetry

Primarily for Graduate Students

(See Graduate School Catalog for course descriptions)

MEDITERRANEAN STUDIES 201. Cuneiform Hittite

Mr. Hoffner

*Not to be given in 1964-65.

- *MEDITERRANEAN STUDIES 202. The Amarna Age Synthesis
- *MEDITERRANEAN STUDIES 203. Ethical and Magical Literatures
in the Greco-Roman World
- *MEDITERRANEAN STUDIES 206. The West Semites
- MEDITERRANEAN STUDIES 210a. Coptic *Mr. Young*
- MEDITERRANEAN STUDIES 211a. Egypto-Semitic Linguistics *Mr. Young*
- MEDITERRANEAN STUDIES 219. History of Arabic Literature *Mr. de Somogyi*
- *MEDITERRANEAN STUDIES 220. The Islamic States
- MEDITERRANEAN STUDIES 221. Intermediate Arabic *Mr. de Somogyi*
- MEDITERRANEAN STUDIES 222. Advanced Arabic *Mr. de Somogyi*
- MEDITERRANEAN STUDIES 302. The Eastern Mediterranean in the Bronze Age
Mr. Astour
- MEDITERRANEAN STUDIES 400. Research in Mediterranean Studies *Staff*

Comparative Literature

Committee: Associate Professor DENAH L. LIDA (*Student Adviser*); Professors JOSEPH I. CHESKIS, MILTON HINDUS; Assistant Professors IRWIN WEIL, ELÉONORE M. ZIMMERMANN.

Requirements for Concentration

A. Two half courses chosen from Comparative Literature 116b, 145a, 145b.
B. Two half courses chosen from Comparative Literature 141b, 146bR, 147a, 150b, 155b, 160aR, 181bR. (The one course not taken under Requirement A may also be applied.)

C. Four half literature courses in each of two language areas. (In Italian and Russian, Italian 10 or Russian 10 may be applied.)

D. Additional requirement for candidates for degree with distinction: Comparative Literature 99.

It is strongly recommended that concentrators take a composition course (French, German, or Spanish 106; Italian or Russian 3a) in the foreign language or languages in which they choose to work.

It is strongly recommended that concentrators take Comparative Literature 97c in their junior year.

In all Comparative Literature courses taken under Requirements A and B, concentrators are required to read in the original the works written in the two languages of their concentration.

*COMPARATIVE LITERATURE 97c. Junior Tutorial

Reading and research on specific subjects.

*Not to be given in 1964-65.

COMPARATIVE LITERATURE 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the Coordinator or the Chairman. *Staff*

COMPARATIVE LITERATURE 99. Senior Research

Students who are candidates for a degree with honors in Comparative Literature must register for this course and prepare, under faculty direction, an honors thesis of 10,000 words on an appropriate topic. *Staff*

COMPARATIVE LITERATURE 114a. Medieval Literature:*English and Continental**

Saga literature; the *Nibelungenlied*; the *Mabinogion*, the medieval lyric; the beginnings of drama; writings of the mystics.

***COMPARATIVE LITERATURE 116b. The Renaissance**

Prerequisite: A reading knowledge of one of the foreign languages involved in the course.

***COMPARATIVE LITERATURE 141b. The Picaresque Tradition
in the Novel**

Prerequisite: A reading knowledge of one of the foreign languages involved in the course.

COMPARATIVE LITERATURE 145a and b. European Romanticism

Prerequisite: A reading knowledge of one of the foreign languages involved in the course. *Miss Zimmermann*

***COMPARATIVE LITERATURE 146bR. Stendhal and Tolstoi**

See Russian 146bR.

COMPARATIVE LITERATURE 147a. Symbolism

Mr. Bonnefoy

***COMPARATIVE LITERATURE 150b. Dostoevski, Gide and Mann**

Reading and discussion of some of the chief works of those writers, with a view to elucidating their common philosophical themes and their experimentation with the form of the novel.

***COMPARATIVE LITERATURE 155b. Proust and Joyce**

Remembrance of Things Past and *Ulysses* will be read, and various interpretations of these works by modern critics will be considered and compared with each other.

COMPARATIVE LITERATURE 158a. Rousseau and Tolstoi

The influence of Rousseau on the esthetics, religious, and social views of Tolstoi. *Mr. Cheski*

***COMPARATIVE LITERATURE 160aR. Autobiography as Literature**

An analysis of the problems of literary self-representation through a study of the most important literary autobiographies, such as St. Augustine's and Rousseau's *Confessions*.

*Not to be given in 1964-65.

COMPARATIVE LITERATURE 165b. The Jewish Image in World Literature

*See Contemporary Jewish Studies.**Miss Syrkin*

COMPARATIVE LITERATURE 167a. The Literature of the Holocaust

*See Contemporary Jewish Studies and NEJS.**Miss Syrkin*

COMPARATIVE LITERATURE 171a. The Modern Drama

*See Theatre Arts 122a.**Mr. Sommers*

COMPARATIVE LITERATURE 181bR. Don Juan

The development of the Don Juan theme in European and American literature and thought.

Prerequisite: A reading knowledge of one of the foreign languages involved in the course.

Mrs. Lida

COMPARATIVE LITERATURE 184a. The Literature of Worldliness

*See English 184a.**Mr. Kronenberger*

COMPARATIVE LITERATURE 186a and b. Pro-Seminar in Poetry

*See English 186a and b.**Miss Bogan*

Computer Science

Associate Professor MAX CHRETIEN, *Director of Computer Center.*

Advisory Committee: Professors KENNETH W. FORD, HOWARD FREEMAN; Associate Professors ULRIC NEISSER, ROBERT S. WEISS; Assistant Professor THOMAS N. MARGULIS.

COMPUTER SCIENCE 30b. Computer Programming and Application

Introduction to computers and computer programming with applications in statistics and scientific computation. General principles of programming will be supplemented by practical utilization of the IBM 1620 computer at the Brandeis Computer Center.

Prerequisite: Mathematics 10, Physics 18a, or permission of instructor.

*2 credits.**To be announced*

Contemporary Jewish Studies

Interested undergraduates may enroll in the course of instruction grouped in the Graduate Catalog under *Contemporary Jewish Studies.*

CJS 172b. Theory of Jewish Education

Some of the major problems of teaching in the Jewish school will be considered along with an exploration of possible effective and creative approaches to them.

A *non-credit* course offered to students interested in Jewish school education.

Mr. Lukinsky

COMPARATIVE LITERATURE 165b. The Jewish Image in World Literature

Miss Syrkin

COMPARATIVE LITERATURE 167a. The Literature of the Holocaust

Miss Syrkin

ENGLISH 187a. The American Jewish Novel

Miss Syrkin

NEJS 160a.	American Jewish History in the Nineteenth Century	<i>Mr. Halpern</i>
NEJS 160b.	American Jewish History in the Twentieth Century	<i>Mr. Halpern</i>
NEJS 166a.	Modern Jewish Intellectual History to 1870	<i>Mr. Halpern</i>
NEJS 166b.	Modern Jewish Intellectual History since 1870	<i>Mr. Halpern</i>
NEJS 167a.	The Literature of the Holocaust	<i>Miss Syrkin</i>
NEJS 168a.	Judaism and Contemporary Social Issues	<i>Mr. Zion</i>
SOCIOLOGY 103a.	The Sociology of Religion	<i>Mr. Sobel</i>
SOCIOLOGY 105b.	Sociology of Modern Anti-Semitism	<i>Mr. Sobel</i>
SOCIOLOGY 115b.	The Sociology of the American Churches	<i>Mr. Sobel</i>

Economics

Associate Professor RICHARD S. WECKSTEIN, *Chairman*; Professors JOSEPH S. BERLINER, PETER J. D. WILES; Associate Professors BARBARA R. BERMAN, ROMNEY ROBINSON; Assistant Professors ROBERT EVANS, JR., HOWARD M. GITELMAN (*Student Adviser*), ROBERT W. HARTMAN.

Requirements for Concentration

A. Candidates must complete satisfactorily: Economics 1a, 1b, 80a, 82b, 83a.

B. Candidates must complete satisfactorily a minimum total of 11 semester courses (including those listed under A). Not more than 5 courses numbered under 80 may be counted toward this requirement.

C. Candidates must complete satisfactorily a program of three (one-semester) courses or their equivalent offered by other departments within the School of Social Science. The choice of these courses must be approved by the Department of Economics.

D. Candidates for degrees with distinction must complete satisfactorily Economics 99.

Where prerequisites are listed, they must be fulfilled satisfactorily before enrollment in the stipulated course, except in extraordinary circumstances with permission of the Chairman of the Department.

ECONOMICS 1a. Introduction to Economics

A study of the principal economic issues facing contemporary societies; the organization of resources for production; the functions of money, credit and prices; the economic roles of corporations, labor unions, banks, governments; depressions and inflations, and the remedies available therefor.

Open to freshmen.

Staff

ECONOMICS 1aR. Introduction to Economics

The same as Economics 1a, but given in the Spring term.

Staff

ECONOMICS 1b. Introduction to Economics

A continuation of Economics 1a, with special attention given to the analysis of price determination and competition, international trade, the economics of underdeveloped countries, and problems of growth and development.

Prerequisite: Economics 1a.

Open to freshmen.

Staff

ECONOMICS 1bR. Introduction to Economics

The same as Economics 1b, but given in the Fall term.

Staff

***ECONOMICS 2a. Modern Economics—A Survey**

An experimental course open to juniors and seniors who are not Economics concentrators. It will study concisely a select group of economic problems of contemporary societies.

ECONOMICS 20a. American Labor History

An analysis of the organizations and personalities involved in the formation of the American labor movement from the colonial era to the AFL-CIO merger. Emphasis is placed on the social and economic forces which give rise to unionism and determine its character.

Prerequisite: Economics 1a.

Mr. Gitelman

ECONOMICS 20b. Industrial Relations

The structure and functions of the contemporary American industrial relations system. Emphasis is placed on national labor policy, collective bargaining, and on select problem areas such as unemployment, technological change and union stagnation.

Prerequisites: Economics 1a and 1b.

Mr. Gitelman

***ECONOMICS 22a. American Economic History**

An analysis of the determinants of economic growth within the United States, with attention given to the interrelationship between agricultural, transportation, and industrial developments, and to changes in commercial organization, the banking system and financial markets, the organization of labor and the role of government.

Prerequisite: Economics 1a.

ECONOMICS 24a. Soviet Economic History

The Tsarist and Marxist backgrounds; the country's natural resources; war communism; the New Economic Policy; the Five-Year Plans; the post-Stalin period; institutional changes; the course of real national income and its components.

Prerequisite: Economics 1a.

Mr. Berliner

ECONOMICS 30a. Economics of Socialism

An examination of the concrete versions of the socialist economy proposed by the principal socialist thinking since 1800, with stress laid on the influence of the actual development of capitalism on socialist thought. A study of the economics of modern socialism is included, but not that of modern communism.

To be announced

ECONOMICS 34a. Government: Expenditures and Taxation

Deals with the proper scope of government and private economic activity; effects of taxation on equity and efficiency; problems of cost and choice in government expenditures. Case studies to include government activities in the fields of education, national defense, and urban renewal.

Prerequisites: Economics 1a and 1b.

Mr. Hartman

*Not to be given in 1964-65.

ECONOMICS 46b. The World Economy: Trade and Development

A survey of patterns of world trade and capital movement including a study of imperialism in the 19th-20th centuries. Special attention is given to the problems of underdeveloped countries and their developing need for trade and capital. Proposals are studied for the reorganization of world economic institutions aimed at meeting these needs.

Prerequisites: Economics 1a and 1b.

Mr. Weckstein

ECONOMICS 54bR (formerly 180b). Government and Business in the United States

An economic analysis of the relation between the federal government and private business, with particular attention paid (i) to the attempt to restrain competition in certain industries by means of such agencies as the Interstate Commerce Commission, and (ii) to the attempt to encourage competition elsewhere through the antitrust laws.

Prerequisites: Economics 1a and 1b.

Mr. Robinson

ECONOMICS 68b. History of Economic Thought

A survey of economic thought from antiquity to the modern period with most weight being given to developments since the seventeenth century. Emphasis is placed on the understanding of economic thought in the context of the economic circumstances of its time.

Prerequisite: Economics 1a.

To be announced

ECONOMICS 75a. The Economics of Underdeveloped Countries

An examination of the causes and characteristics of economic underdevelopment and an appraisal of the prospects for change in light of population growth, culture patterns, and resources. Attention will be given to particular countries within the underdeveloped world.

Recommended for Latin American Studies concentrators.

Prerequisites: Economics 1a and 1b.

Mr. Berliner

ECONOMICS 80a. Price Theory

A study of resource allocation under various forms of market organization; theory of consumer behavior; theory of the firm; prices of factors of production; general equilibrium.

Prerequisites: Economics 1a and 1b.

Mr. Robinson

ECONOMICS 82b. Income Analysis and Fiscal Policy

The meaning of the various national income concepts, and their development through business accounting procedures; the factors determining the level of national income and employment; the influence of governmental fiscal and monetary policies on the level of employment and income.

Prerequisites: Economics 1a and 1b.

Mr. Hartman

ECONOMICS 83a. Quantitative Methods in Economics

Introduction to the theory and practices of the use of data in economics. The organization of data, sampling, tests of hypotheses, and measuring of relationships among economic variables will be discussed.

To be announced

***ECONOMICS 96b. Field Work in Economics**

Collective empirical research into some economic topic that can be studied in the neighborhood.

Prerequisite: Economics 83a.

ECONOMICS 98a and b. Readings in Economics

Readings and reports under the direction of a faculty supervisor. Available to seniors with permission of the Department. *Staff*

ECONOMICS 99. Senior Research

Seniors who are candidates for degrees with distinction in Economics are required to register for this course and, under the direction of a member of the faculty, prepare an honors thesis on a suitable topic. *Staff*

ECONOMICS 101b. Political Economy Seminar

A study of issues on which both economic and politics make related contributions. A major part of the seminar is devoted to the preparation of legislative proposals dealing with current critical issues. Presentations are based on data and information obtained firsthand in Washington. This course is the same as Politics 101b.

Registration is limited to a small group to be selected by the instructors from the senior class of Economics and Politics concentrators.

Mr. Weckstein and Mr. Woll

ECONOMICS 120a. Labor Economics and Labor Policy

A theoretical and empirical approach to wage determination, the economic impact of unionism, labor markets, and labor mobility, the labor force, and unemployment. Policy considerations range from the effects of minimum wage laws to the strengths of the Manpower Development and Training Act.

Prerequisite: Economics 80a.

Mr. Gitelman

***ECONOMICS 130b. Introduction to Mathematical Economics**

The application of mathematical methods to a range of problems in economic theory.

Open to students only with the permission of the instructor.

ECONOMICS 135b. Industrial Pricing Behavior

An examination of the decision-making process in the present-day business firm, including examination of some dissenting views with respect to the conclusions of marginal price analysis.

Prerequisite: Economics 80a.

Mr. Robinson

ECONOMICS 140a. Theories of Economic Development

An examination of modern theories of economic development and underdevelopment. The roles of capital accumulation, technological change, and efficiency are distinguished. Emphasis is centered on development policies and planning.

Prerequisites: Economics 80a and 82b.

Mr. Weckstein

*Not to be given in 1964-65.

ECONOMICS 150b. Economic Analysis of Social Policy

An adaptation of tools of economic analysis to reciprocal relations between economic and social variables. The relations investigated are those between the economy, social institutions, social groups, social change, and social ethics.

Prerequisites: Economics 80a and 82b, or permission of instructor. *Mr. Berliner*

ECONOMICS 160b. International Economics

International monetary arrangements, foreign exchanges and exchange control, the theory of international trade and price relationships, capital movements and labor migration, customs unions, the theory of international liquidity.

Prerequisites: Economics 80a and 82b. *To be announced*

ECONOMICS 170a. Policies for Economic Growth and Stability:**Current American Problems**

The formulation of policies concerning the maintenance of full employment and the acceleration of growth, and the related problems of price stability and the balance of payments. Particular attention is given to monetary institutions and policy tools and to the interactions of monetary and fiscal policy.

Prerequisite: Economics 82b. *Mr. Hartman*

ECONOMICS 186b. Economic Problems of Communism

Types of socialism; types of central planning, profit and other indicators as guides to action and criteria of choice; prices under central planning; the Yugoslav variant. Approaches to socialism in agriculture in the U.S.S.R., Yugoslavia, Poland, China. Workers' control industry; full communism.

Prerequisite: Economics 80a or 24a. *To be announced*

ECONOMICS 190a and 190b. Topics in Advanced Economics

These two courses are open to seniors only and require the consent of the department. *Staff*

Education

Committee: DEAN EUGENE C. BLACK, *Chairman*; Assistant Professor DAVID H. FISCHER, DEAN KERMIT C. MORRISSEY, Mr. JACK REITZES (*Secretary and Director of Program*).

The program offers, within the framework of the liberal arts curriculum, an introduction to teaching in the elementary and secondary schools. The program's requirements are in addition to the requirements of a regular field of concentration. Students who complete the program will acquire a minimum of fifteen credits toward certification for teaching.

The committee admits qualified students to the Education Program in the second term of their junior year. Applications should be filed with the director. Applicants should complete one-half course from each of the following groups (A and B) prior to the senior year:

- A. Psychology 15a
- Psychology 30b
- Sociology 104b

- B. Philosophy 23b
- History 160a

- Child Development
- Educational Psychology
- Sociology of Education
- Philosophy of Education
- History of American Education

Seniors in the Education Program are required to enroll in Education 10 and in either Education 1c or Education 2a.

EDUCATION 1c. Seminar: Teaching Theory and Practice in the Elementary School

An analysis of methods and principles of instruction in the elementary school. Existing and proposed curricula in reading, mathematics, science, social studies, and other areas will be examined and discussed with teacher-consultants from several elementary schools. The seminar will meet two hours each week in the fall and one hour each week in the spring semester.

Enrollment limited to seniors approved by the Faculty Committee on Education. *Mr. Reitzes and Staff*

EDUCATION 2a. Theory of Teaching in the Secondary School

An analysis of methods and principles of instruction of subjects taught in the secondary school. To be taken concurrently with, or prior to, Education 10.

Enrollment limited to seniors approved by the Faculty Committee on Education. *Mr. Reitzes*

EDUCATION 10. Practice Teaching

Observation and student teaching in elementary or secondary schools under supervision of experienced teachers; regular conferences to discuss and evaluate the teaching experience.

A minimum of 180 hours of practice teaching, to be taken in a single term during the senior year.

Enrollment limited to seniors approved by the Faculty Committee on Education. Students must reserve at least every morning in one term for this course. Fall Term—6 credits; Spring Term—6 credits. *Mr. Reitzes*

The director of the Education Program serves as adviser to all undergraduates interested in preparing themselves for careers in teaching. Those who intend to pursue the Education Program should confer with the director in their freshman or sophomore year, and make formal application early in the second term of the junior year.

English and American Literature

Professor VICTOR HARRIS, *Chairman*; Professors LOUISE BOGAN, J. V. CUNNINGHAM, MARY E. GIFFIN, MILTON HINDUS, LOUIS KRONENBERGER, ROBERT O. PREYER, PHILIP RAHV; Associate Professors BENJAMIN B. HOOVER, MARIE SYRKIN, AILEEN WARD; Assistant Professors BARBARA CHARLESWORTH, ROBERT EVANS, ALLEN GROSSMAN, IRA KONIGSBERG, ALAN LEVITAN, PETER SWIGGART; MR. BERNARD BERGONZI, DR. JOHN B. WIGHT (*Student Adviser*), MR. PHILIP J. DRISCOLL, DR. KAREN W. KLEIN, MR. RICHARD J. ONORATO, DR. TRAVIS SUMMERSGILL.

Requirements for Concentration

Required of all Candidates: Ten half courses. These include a course in method, English 1a or 111b; courses in Chaucer and Shakespeare, English 2b and 3a; five period courses in English and American Literature or their tutorial

equivalents, English 4a; 5a or 105a; 6b or 106a; 7a or 107b; 8a or 108a; a course in either linguistics or criticism, English 121a, 122a, 192b, Humanities 192b, and English 100a or b, the comprehensive examination.

The tutorials (English 104b through 108a) are limited in enrollment to fifteen students.

Primarily for Undergraduates

ENGLISH 1a and 1aR. Introduction to the Study of Literature

A course designed to train students in the techniques of literary study.

Restricted to freshmen.

Miss Charlesworth

ENGLISH 2b. Chaucer

Selected *Canterbury Tales*, and *Troilus and Crisseida*.

Miss Giffin

ENGLISH 3a and 3aR. Shakespeare

Mr. Cunningham and Miss Ward

ENGLISH 4a. Early English Literature: Beowulf to Marlowe

Mr. Levitan

ENGLISH 5a. English and American Literature: Jonson to Swift

Mr. Harris

ENGLISH 6b. English and American Literature: Johnson to Keats

Mr. Hoover

ENGLISH 7a. English Literature: Victorian Period

Mr. Preyer

ENGLISH 8a. American Literature from 1832 to 1900

Mr. Hindus

ENGLISH 9b. American Literature from 1900 to 1964

Prerequisite: English 8a.

Miss Syrkin

ENGLISH 55a. The Literature of Modern Ireland

Mr. Driscoll

ENGLISH 61b. The English Lyric: British Poetry 1930-1960

Mr. Bergonzi

ENGLISH 62b. The American Lyric

Mr. Grossman

ENGLISH 72a. The Nineteenth Century Novel: Scott to Conrad

Mr. Konigsberg

ENGLISH 90a. Independent Study

Mr. Hoover

ENGLISH 90b. Independent Study

Mr. Hindus

ENGLISH 100a or b. Comprehensive Examination

An examination, required of concentrators in English, on the ability to interpret and evaluate literary works, given in December and April. The list of works will be announced at the beginning of each semester.

Messrs. Hindus and Grossman

ENGLISH 103b. Tutorial in Shakespeare

Mr. Harris

ENGLISH 105a. Tutorial in Seventeenth Century Literature: Poetry of Meditation

Limited enrollment.

Mr. Grossman

ENGLISH 106a. Tutorial in Eighteenth Century Poetry and Prose

Johnson, Boswell, Sheridan, Austen, and some poets. *Limited enrollment.*

Mr. Hoover

ENGLISH 106b. Tutorial in Romantic Poetry

Mr. Onorato

ENGLISH 107b. Tutorial in Pater, Wilde, James, and Yeats

Miss Charlesworth

ENGLISH 108a. Tutorial in American Literature

Hawthorne and Melville. *Limited enrollment.*

Mr. Swiggart

ENGLISH 111b. Introduction to Literary Method

Not open to freshmen.

Mr. Preyer

For Undergraduate and Graduate Students

ENGLISH 121a and b. Old English

An introduction to Old English grammar, with special attention to the rapid attainment of skill in reading. Texts of prose and the shorter poems will be read in the first semester; *Beowulf* in the second semester.

Students may not enter the second semester without having taken the first or its equivalent.

Mrs. Klein

ENGLISH 122a. The Medieval Lyric

The development of lyric poetry in England, France, and Germany in the Middle Ages, with special attention to the Middle English lyric.

Mrs. Klein

ENGLISH 142b. Elizabethan and Jacobean Drama

Mr. Summersgill

ENGLISH 147b. Milton's Poetry

Mr. Bergonzi

ENGLISH 150b. The Classical Background of English Poetry

Mr. Wight

*ENGLISH 160b. Whitman and Dickinson

ENGLISH 173a. The English Novel, Twentieth Century: British, 1930-1960

Mr. Bergonzi

ENGLISH 184a. The Literature of Worldliness

A critique of worldly motives and values. Moliere, Congreve, Pope, Walpole, Austen, Byron, Pushkin, Thackeray, James, Wharton, and others.

Mr. Kronenberger

ENGLISH 185a. The Literature of Transition: Classical to Romantic

Mr. Onorato

ENGLISH 186a and b. Twentieth Century Poetry, Backgrounds and Problems

Miss Bogan

ENGLISH 187a. The American Jewish Novel

See Contemporary Jewish Studies.

Miss Syrkin

ENGLISH 192b. History and Structure of the English Language

A study of the linguistic structure of modern English and of the historical processes through which it developed.

Mrs. Klein

*Not to be given in 1964-65.

Courses in Related Areas

In addition to the courses here listed, students should consult offerings under the following headings: Humanities, Comparative Literature, and Theatre Arts.

Primarily for Graduate Students

(See Graduate Catalog for course descriptions)

ENGLISH 201a.	Introduction to Literary Study	<i>Mr. Hoover</i>
ENGLISH 204a.	Pro-Seminar in Medieval Literature	<i>Miss Giffin</i>
ENGLISH 205a.	Pro-Seminar in Seventeenth Century Literature	<i>Mr. Harris</i>
ENGLISH 206b.	Pro-Seminar in the Eighteenth Century Novel	<i>Mr. Konigsberg</i>
ENGLISH 207a.	Pro-Seminar in the Nineteenth Century: Romantic Poetry and Criticism	<i>Miss Ward</i>
ENGLISH 208b.	Pro-Seminar in American Literature: Nineteenth Century	<i>Mr. Swiggart</i>
ENGLISH 209b.	Pro-Seminar in Poetry: American Poetry	<i>Mr. Cunningham</i>
ENGLISH 212a.	Seminar in the Novel	<i>Mr. Konigsberg</i>
ENGLISH 213a.	Seminar in Criticism: Five Modern Theories of Poetry	<i>Mr. Swiggart</i>
ENGLISH 213b.	Seminar in Criticism: Image and Metaphor in English Poetry	<i>Miss Ward</i>
ENGLISH 214b.	Seminar in Medieval Literature	<i>Miss Giffin</i>
ENGLISH 215a.	Seminar in Renaissance Literature	<i>Mr. Cunningham</i>
ENGLISH 216b.	Seminar in the Eighteenth Century	<i>Mr. Hoover</i>
ENGLISH 217a.	Seminar in Victorian Poetry and Poetics	<i>Mr. Preyer</i>
ENGLISH 217b.	Seminar in Victorian Literature	<i>Mr. Preyer</i>
ENGLISH 220a.	Seminar in the Twentieth Century: British Writers and the First World War	<i>Mr. Bergonzi</i>
ENGLISH 225b.	Seminar in Seventeenth Century Literature	<i>Mr. Harris</i>
ENGLISH 261a.	Seminar in Anglo-Irish Literature	<i>Mr. Grossman</i>
ENGLISH 290a and b.	Directed Research	<i>Mr. Preyer</i>
ENGLISH 301b.	The English Seminar	<i>Mr. Hoover</i>

ENGLISH 311. Seminar in Teaching

Mr. Wight

ENGLISH 321a and b. Earlier English Literature

Mr. Konigsberg and Miss Giffin

ENGLISH 322a and b. Later English Literature and American Literature

Miss Ward and Mr. Swiggart

ENGLISH COMPOSITION 1a and 1aR. Introduction to Writing

Weekly exercises in the various forms of writing.

This course fulfills the General Education requirement in English Composition.

Mr. Wight and Staff

ENGLISH COMPOSITION 2a. Advanced Writing

This is a more advanced course, parallel to English Composition 1a and 1aR. Students may not take this course for credit in addition to English Composition 1a and 1aR.

Not an elective course; placement by Department of English.

Open only to students of more than average ability, with consent of the instructor. This course fulfills the General Education requirement in English Composition.

Mr. Wight

ENGLISH COMPOSITION 101a and b. Directed Writing

Miss Bogan

ENGLISH COMPOSITION 102a and b. The Writing of Poetry

Miss Bogan



English and Classics

Committee: DR. JOHN B. WIGHT, *Chairman*.

Requirements for Concentration

A. Three full courses in the required English sequence, English 1a to 8a.

B. Three full courses in Latin above the Latin 1 level or three full courses in Greek above the Greek 1 level.

C. One full course of independent study (English 90a and b).

It is recommended, though not required, that a student offering the combination of English and Latin also acquire an elementary knowledge of Greek and that a student offering the combination of English and Greek, also acquire an elementary knowledge of Latin. A student's course of study in this field may be supplemented by appropriate courses in history, philosophy, art, and archeology.

No course which is offered in fulfillment of the general language requirement may be counted toward concentration in this field.

European Languages and Comparative Literature

Chairman to be announced; Professors YVES BONNEFOY, JOSEPH I. CHESKIS, JAMES E. DUFFY (*Adviser to Spanish Concentrators*); Associate Professors DENAH L. LIDA (*Adviser to Comparative Literature Concentrators*), MURRAY SACHS (*Adviser to French Concentrators*), HARRY ZOHNS (*Adviser to German Concentrators*); Assistant Professors CHARLES AFFRON, WALTER E. ALBERT, MICHAEL C. ASTOUR, STEPHEN J. GENDZIER (*Language Coordinator*), WILLIAM H. MATHE-SON, ESTHER RAWIDOWICZ, EVELYN S. SIMHA, GERALD VOLPE, IRWIN WEIL (*Adviser to Russian Concentrators*), ELÉONORE ZIMMERMANN; MISS ROSE ABEND-STERN, MISS ANDREE COLLARD, MISS M. ETIENNE, MR. CHARLES GRIBBLE (*Language Laboratory Coordinator*), MR. L. DAVIS HAMMOND, MR. BRUCE J. MIKEL, MRS. JANICE REISMAN, MR. ROBERT SZULKIN, MR. RALPH TARICA, MR. LUIS E. YGLESIAS.

For course offerings and requirements for concentration see French, German, Greek, Italian, Latin, Russian, Spanish, and Yiddish.

Fine Arts

Associate Professor CREIGHTON GILBERT, *Chairman*; Professors LEO BRONSTEIN, PETER GRIPPE, MITCHELL SIPORIN; Associate Professors LETTERIO CALAPAI, JOACHIM GAEHDE, THALIA HOWE, SAM HUNTER, SAHL SWARZ; Assistant Professors ALAIN DE LEIRIS (*Student Adviser*), ARTHUR POLONSKY.

Requirements for Concentration

The Fine Arts concentrator may elect his concentration in either of two subdivisions: (1) Applied Arts (Studio), or (2) Art History and Criticism.

A. All Fine Arts concentrators will take a total of seven full courses or the equivalent within the department, to be selected as follows:

2 semesters of early period courses (numbered 30-49; 130-149)

3 semesters of later period courses (numbered 50-79; 122a; 150-179)

1 semester in Oriental art (80-89; 180-189)

Fine Arts 1, 103



B. Studio concentrators will take four additional semesters of studio electives.

C. History concentrators will take four additional semesters of art history electives.

None of the above requirements may be altered except with departmental approval.

FINE ARTS 1. Elements of Design in Art

Theoretical and visual explorations into the meaningful existence of forms in art, and the function of motion, color, line and illusion in pictorial expression.

The course includes work in black and white and in various color media, analyses of texts on design, and of color-slides, and drawing from life.

Three studio hours per week.

Fine Arts 1 is a full year course and may not be dropped with credit at midyear.

Mr. Polonsky

FINE ARTS 30a. Introduction to the History of Art I: Antiquity and the Middle Ages

A study of the art of Egypt, Greece, Rome and Medieval Europe, stressing a critical evaluation of the forms and an understanding of the relationships between art and thought in each age.

Mr. Gaehde

FINE ARTS 31a. Pre-Classical Greek Art

Greek painting, sculpture, and architecture from the Neolithic through the Cretan-Mycenaean, Geometric, Orientalizing and Archaic periods.

See CMS 4a.

Mrs. Howe

FINE ARTS 31b. Classical and Post-Classical Greek Art

Greek painting, sculpture, and architecture of the Fifth and Fourth Centuries, B.C. and the Hellenistic period.

See CMS 4b.

Mrs. Howe

FINE ARTS 41a. Early Christian and Byzantine Art

A study of form and meaning in architecture, sculpture and painting from the beginning of the Christian era to the Fall of Constantinople.

Mr. Gaehde

FINE ARTS 42b. Medieval Art in Western Europe

Architecture, sculpture and painting from the migrations to the end of the Gothic period.

Mr. Gaehde

FINE ARTS 50b. Introduction to the History of Art II: From the Renaissance to the Modern Age

A survey of European art. Critical evaluation of representative works and monuments and of the values which they manifest. Original works in local collections will be assigned for study.

Mr. Bronstein

***FINE ARTS 51a. Art of the Early Renaissance in Italy**

Major painters, sculptors and architects in Rome, Florence and Venice from Giotto to Leonardo da Vinci.

FINE ARTS 54a. Renaissance Art in Northern Europe

Emphasis on the leading painters: Van Eyck, Van der Weyden, Bosch, Duerer, Gruenewald, and Bruegel.

Mr. Gilbert

***FINE ARTS 58b. The High Renaissance in Italy**

A study of sixteenth century painting, sculpture and architecture, with special emphasis on Michelangelo and Titian.

FINE ARTS 70a. Nineteenth Century French Painting

Emphasis on: David, Delacroix, Ingres, Courbet, Manet, Degas, Monet, Seurat, Cezanne, Van Gogh, Gauguin.

Mr. de Leiris

FINE ARTS 71b. Art of the Twentieth Century

Twentieth century painting, sculpture and architecture in Europe and America.

Mr. de Leiris

FINE ARTS 81b. The Islamic Art of the Near and Middle East

Originality of the Iranian Islamic formula. Its central role. Its radiation West and East, including Spain and India. Special emphasis is given to Islamic architecture and painting.

In 1964-65, special emphasis will be given to Iran.

Mr. Bronstein

***FINE ARTS 85a. The Art of Mesopotamia and Egypt**

A study of form and meaning in the architecture, sculpture and painting of the ancient Middle East.

FINE ARTS 99. Senior Research

Staff

FINE ARTS 102. Theory and Practice of Painting

Organization of natural and abstract forms in space. Psychological and emotive potentialities of composition and color. Exploration of the working materials of the painter.

Prerequisite: Fine Arts I or consent of the instructor.

Three studio hours per week.

Studio fee: \$5. per semester.

Mr. Siporin

FINE ARTS 103. Life Drawing

Principles of observing the basic shapes in nature as they are found in objects and the human figure. Gesture, volume and texture are studied. The student is

*Not to be given in 1964-65.

introduced to methods of drawing, stressing volume and space through line as well as light and shade.

Prerequisite: Fine Arts 1 or consent of the instructor.

Three studio hours per week.

Studio fee: \$5. per semester.

Mr. Polonsky

FINE ARTS 104. Advanced Life Drawing

Advanced study of drawing with special emphasis on the human figure, its anatomy and structural design. Individual expression is encouraged and the use of drawing in pictorial composition is explored.

Prerequisite: Fine Arts 103 or consent of the instructor.

Studio fee: \$5. per semester.

Mr. Siporin

FINE ARTS 108. Advanced Painting

A workshop course which will stress creative individual work in painting. The study of natural forms, as well as the organization of forms from the imagination will be undertaken. The various media of painting and the employment of the technical means of art towards personal artistic expression in painting will be explored.

Prerequisite: Consent of the instructor.

Studio fee: \$5. per semester.

Mr. Siporin

FINE ARTS 111. Sculpture

This course orients the beginning student to problems of modeling in clay and wax, coloring and glazing of tiles, slip making and firing of kiln. Compositions from life and also from the imagination are studied in bas relief and in the round.

Three classroom hours and three hours of informal studio work per week.

Prerequisite: Either Fine Arts 1 or Fine Arts 103 or consent of the instructor.

Studio fee: \$15. per semester.

Mr. Swarz

FINE ARTS 112. Advanced Sculpture

A workshop course which will explore the techniques of the classical styles, beginning with the Renaissance through cubism, and into the present abstract and expressionist styles of contemporary sculptures. Design and figure composition will be stressed.

Prerequisite: Consent of the instructor.

Studio fee: \$15. per semester.

Mr. Swarz

FINE ARTS 115. Workshop in Woodcut, Etching and Engraving

A comprehensive course in new ways of gravure. Techniques covered in this course include woodcut, line engraving, dry point, lift ground, aquatint, and bitten textures, as well as intaglio and surface printing. Printing in black and white and color is studied.

Prerequisite: Open to art concentrators or with consent of the instructor.

Studio fee: \$12.50 per semester.

Mr. Calapai

FINE ARTS 120b. Architecture

A discussion of form and function in architectural masterpieces of the past and of the present day. The planning, construction and esthetic quality of modern houses and other buildings in the Boston area will be studied.

Mr. Gilbert

FINE ARTS 122b. American Painting and Architecture

An historical, philosophical interpretation of American painting and architecture from the beginning to the present.

Mr. de Leiris

***FINE ARTS 125a. An Introduction to the Art Experience**

Visual consciousness. The appreciation of art as a living experience. Comparative structural approach to the problem and study of artistic cultures or "styles." Analysis and discussion of the most representative works of art, past and present. Juniors and seniors only or permission of instructor.

FINE ARTS 127a. Introduction to the Theory of Spanish Art

Spain as the synthesis of the cultures of Islam and of the West. The "classical" tradition from Cordoba to the Escorial; the "Baroque" tradition from Granada to the Renaissance and to Gaudi.

See Spanish 127a.

Mr. Bronstein

***FINE ARTS 130b. The Art of Ancient Rome**

Architecture, sculpture, and painting from the Etruscans to the Fall of the Empire.

FINE ARTS 160b. Seventeenth Century Masters

Emphasis on Caravaggio, Rubens, Bernini, Velazquez, Rembrandt, Poussin, and Vermeer.

Mr. Gilbert

FINE ARTS 171b. Painting and Sculpture since 1945

A study of American and European art, ideology and criticism in the post war period. Emphasis on the later phases of major twentieth century masters: Picasso, Matisse, Miro, Leger, Ernst; the American movement of abstract expressionism, and such artists as Giacometti, Dubuffet, Pollock, de Kooning, Gorky, Rothko, and others.

Prerequisite: Fine Arts 50b or the equivalent.

Mr. Hunter

FINE ARTS 184a. Seminar in Far Eastern Art

An investigation of selected topics. *In 1964-65, this course will be devoted to Japan.*

Prerequisite: Consent of the instructor.

Mr. Bronstein

FINE ARTS 190b. Advanced Studies in Medieval Art

A study of selected works or problems by means of seminar discussion. The topic will be announced each year.

Prerequisite: Permission of the instructor required.

Mr. Gaehde

FINE ARTS 191a. Advanced Studies in the Renaissance

Intensive study of one artist or problem, different each year, by means of seminar discussion.

Prerequisite: Permission of the instructor required.

Mr. Gilbert

FINE ARTS 192a. Advanced Studies in Modern Art

Selected topics (artists; art forms; art theories and criticism). The topic will be announced each year. Conducted on the basis of seminar discussions.

Prerequisite: Permission of the instructor required.

Mr. de Leiris

*Not to be given in 1964-65.

French Language and Literature

Requirements for Concentration

A. Required of all Concentrators: French 3a, 97c, 106b, and two full century courses chosen from French 116a and b, 117a and b, 127a and b.

B. Five half courses from offerings above French 10.

C. One full course from the School of Humanities except logic and composition.

D. A Comprehensive Examination to be taken at the end of the senior year. (Students wishing to prepare for this examination should consult the adviser to concentrators.)

E. Additional requirement for candidates for degrees with distinction: French 99.

French 1 and 2 are full year courses and may not be dropped with credit at midyear.

French 10 may be divided with the permission of the Coordinator or the Chairman.

A *Maison Française* has been established on the campus to house a limited number of girls who wish to increase their fluency and to live in a French-speaking environment. Priority for membership in the *Maison Française* will be given to juniors and seniors majoring in French, Romance literature and Comparative Literature; sophomores who are candidates for the Smith-Sweet Briar Programs of *Junior Year Study in France*; and freshmen with a high rating in French in their entrance examinations who plan to concentrate in French. Interested students should apply to the Chairman of the Department of European Languages and Comparative Literature.

FRENCH 1. Introductory French

Staff

FRENCH 2. Intermediate French

Prerequisite: French 1, appropriate placement score, or permission of the instructor.

Staff

FRENCH 3a and 3aR. Intermediate Conversation

Prerequisite: Concentration in French or permission of the instructor.

Mrs. Reisman

FRENCH 5a. Accelerated Second Year French

An *intensive* one-semester course for students whose placement score or performance in French 1 indicates an advanced preparation.

Prerequisite: Permission of the Coordinator or the Chairman.

Staff

FRENCH 10. Readings in French Literature

Prerequisite: French 2 or 5a, appropriate placement score or permission of instructor.

Staff

FRENCH 97c. Tutorial

Prerequisite: Permission of the instructor.

Mr. Sachs

FRENCH 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the Coordinator or the Chairman.

Staff

FRENCH 99. Senior Research

Students who are candidates for degrees with honors in French must register for this course and prepare, under faculty direction, an honors thesis of 10,000 words on an appropriate topic.

Staff

FRENCH 100. Introduction to Literary Analysis

This course is especially recommended to qualified freshmen who anticipate a concentration in some area of the School of Humanities.

Prerequisite: An appropriate placement score or permission of the instructor.
Miss Zimmermann and Mr. Tarica

FRENCH 106b. Advanced French Composition

Prerequisite: French 10 or permission of the instructor. *Mr. Tarica*

FRENCH 107bR. French Stylistics

Conducted entirely in French.

Prerequisite: French 10 or permission of the instructor. *Mr. Bonnefoy*

***FRENCH 111a. Phonetics and the Structure of the French Language**

Prerequisite: French 10 or permission of the instructor.

FRENCH 112a. Theory of Language

The structure of language. Language families. Writing systems. Linguistic prehistory. Historical and comparative linguistics.

Prerequisite: Permission of the instructor. *Mr. Gribble*

***FRENCH 112b. Theory of Language**

Major developments in linguistic theory and the application of linguistic concepts.

Prerequisite: Permission of the instructor.

FRENCH 116a. Medieval French Literature

Prerequisite: French 10 or permission of the instructor. *Mr. Volpe*

FRENCH 116b. French Renaissance Literature

Prerequisite: French 10 or permission of the instructor. *Mr. Volpe*

FRENCH 117a. Seventeenth Century Satire and Irony

Prerequisite: French 10 or permission of the instructor. *Mr. Gendzier*

FRENCH 117b. French Classical Drama

Prerequisite: French 10 or permission of the instructor. *Mr. Albert*

FRENCH 127a. The Eighteenth Century: Prose Fiction

Prerequisite: French 10 or permission of the instructor. *Miss Abendstern*

FRENCH 127b. The Eighteenth Century: The Age of Enlightenment

Prerequisite: French 10 or permission of the instructor. *Mr. Gendzier*

FRENCH 138a. The French Novel in the First Half of the Nineteenth Century

Prerequisite: French 10 or permission of the instructor. *Mr. Affron*

*Not to be given in 1964-65.

FRENCH 138b. The French Novel in the Second Half of the Nineteenth Century*Prerequisite:* French 10 or permission of the instructor.*Mr. Sachs****FRENCH 139a. Romantic and Parnassian Poetry***Prerequisite:* French 10 or permission of the instructor.**FRENCH 139bR. French Poetry: Baudelaire to Valéry***Prerequisite:* French 10 or permission of the instructor.*Mr. Bonnefoy***FRENCH 140aR. The Theatre of the Eighteenth and Nineteenth Centuries***Prerequisite:* French 10 or permission of the instructor.*Mr. Hammond***FRENCH 140b. Twentieth Century Theatre***Prerequisite:* French 10 or permission of the instructor.*Mr. Matheson****FRENCH 149a. Early Twentieth Century French Fiction***Prerequisite:* French 10 or permission of the instructor.***FRENCH 149b. Contemporary French Fiction***Prerequisite:* French 10 or permission of the instructor.**FRENCH 150b. Contemporary French Poetry**

A seminar open only to upperclassmen whose field of concentration is French or Comparative Literature.

Prerequisite: Permission of the Coordinator or the Chairman.*Mr. Albert***FRENCH 199c. Graduate Language Examination**

Supervised reading in French for graduate students in the School of Humanities. Graduate language examination given in December and April. *This is a non-credit course.*

Mr. Sachs

*Not to be given in 1964-65.



General Science

Committee: Associate Professor MORRIS SOODAK, *Chairman and Student Adviser;* Professors STEPHEN BERKO, EDGAR ZWILLING; Associate Professors HAROLD I. LEVINE, ROBERT STEVENSON.

The general science program is designed for students desiring a diversified program in the sciences; for example, for students planning to teach science in secondary schools, to enter medicine or public health and their allied fields, or to undertake other programs requiring a general scientific background. Students who intend to do graduate work in a specific scientific field are advised to fulfill the undergraduate requirements for concentration in that field.

Requirements for Concentration

A. Required of all Candidates: Biology 10; Mathematics 10, 11, or 12; Physics 10 or 11; Chemistry 10a,b or 15a.

The candidate must have a minimum grade of C in each of the four courses taken in this group.

B. Elective Courses: With the approval of the faculty advisers for the program, each concentrator in the general science program must elect, in addition, the equivalent of five full courses from the offerings of the School of Science. These five courses must be selected from at least two and not more than three fields in the School of Science, so that advanced courses will be required of all students in this program. It is strongly recommended that a course in History of Science be elected in addition to the above five courses.

C. Requirements for candidates for degrees with distinction: A student may petition the General Science Committee to devise an honors program which is in accordance with the special background of the individual.

German Language and Literature

Requirements for Concentration

A. Required of all Concentrators: German 3a, 3b, 100a, 106b, 110a or 110b, 120a, 140b, 160b or 180b.

B. One full course chosen from the German course offerings above German 10.

C. One full course in a related area chosen with the consent of the adviser.

D. A Comprehensive Examination to be taken at the end of the senior year. (Students wishing to prepare for this examination should consult the adviser to concentrators.)

E. Additional Requirement for candidates for degrees with distinction: German 99.

German 1 and 2 are full year courses and may not be dropped with credit at midyear.

German 10 may be divided with the permission of the Coordinator or the Chairman.

GERMAN 1. Introductory German

Staff

GERMAN 2. Intermediate German

Prerequisite: German 1, appropriate placement score, or permission of instructor.

Staff

GERMAN 3a and 3b. Intermediate and Advanced Composition and Conversation

Prerequisite: German 1 or permission of the instructor. *Mrs. Rawidowicz*

GERMAN 5a. Accelerated Second Year German

An *intensive* one-semester course for students whose placement score or performance in German 1 indicates an advanced preparation.

Prerequisite: Permission of the Coordinator or the Chairman. *Staff*

GERMAN 10. Readings in German Literature

Prerequisite: German 2 or 5a, appropriate placement score, or permission of the instructor. *Staff*

GERMAN 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the Coordinator or the Chairman. *Staff*

GERMAN 99. Senior Research

Students who are candidates for a degree with honors in German must register for this course and prepare, under faculty direction, an honors thesis of 10,000 words on an appropriate topic. *Staff*

GERMAN 100a. Historical Survey of German Literature

Prerequisite: Permission of the instructor. *Mr. Mikel*

***GERMAN 106b. Advanced Exercises in German Composition and Literary Style**

Prerequisite: Permission of the instructor.

***GERMAN 110a. Introduction to the Life and Works of Goethe**

Prerequisite: German 10 or permission of the instructor.

***GERMAN 110b. Goethe's "Faust"**

Prerequisite: German 10 or permission of the instructor.

GERMAN 112a. Theory of Language

The structure of language. Language families. Writing systems. Linguistic prehistory. Historical and comparative linguistics.

Prerequisite: Permission of the instructor. *Mr. Gribble*

***GERMAN 112b. Theory of Language**

Major developments in linguistic theory and the application of linguistic concepts.

Prerequisite: Permission of the instructor.

GERMAN 120a. Enlightenment, Storm and Stress, Idealism; Lessing and Schiller

Prerequisite: German 10 or permission of the instructor. *Mr. Zohn*

***GERMAN 130b. German Romanticism**

Prerequisite: German 10 or permission of the instructor.

***GERMAN 140bR. German Literature in the Nineteenth Century**

Prerequisite: German 10 or permission of the instructor.

***GERMAN 145b. The German Lyric**

Prerequisite: German 10 or permission of the instructor.

*Not to be given in 1964-65.

GERMAN 150b. The German Novelle from Goethe to Thomas Mann*Prerequisite:* German 10 or permission of the instructor.*Mr. Mikel***GERMAN 160b. German Drama and Lyric Poetry from Naturalism to the Present***Prerequisite:* German 10 or permission of the instructor.*Mr. Zohn****GERMAN 180b. Twentieth Century Prose***Prerequisite:* German 10 or permission of the instructor.**GERMAN 199c. Graduate Language Examination**

Supervised reading in German for graduate students in the School of Humanities. Graduate language examination given in December and April. *This is a non-credit course.*

Mr. Sachs

Greek

See Classical and Mediterranean Studies.

Hebrew

Requirements for Concentration

For requirements for concentration in Hebrew Literature, see *Near Eastern and Judaic Studies*.

HEBREW 1. Introductory Hebrew

Fundamentals of grammar, acquisition of vocabulary, brief compositions and reading of simple texts.

*Open to those students who have not previously had instruction in Hebrew.**Mr. Levy***HEBREW 2. Intermediate Hebrew**

The structural method will be used, aiming at promoting the student's acquaintance with the necessary tools for an active use of the language.

Prerequisite: Hebrew 1 or its equivalent; consent of instructor required.*Mr. Levine***HEBREW H3a. The Hebrew Language (Hiatt Institute in Israel)**

Basic grammar; reading of simple texts; composition and conversation with emphasis on the spoken language. *4 credits.*

*Mr. Kamrat***HEBREW 10. Introduction to Post-Biblical Hebrew Literature**

Excerpts from selected works will be read and analyzed from both the linguistic and the literary points of view.

Prerequisite: Hebrew 2 or its equivalent.*Mr. Scult***HEBREW 80. Advanced Hebrew Composition and Conversation**

An intensive course in modern Hebrew. Selected prose will be read as a basis for the writing of short Hebrew essays and for conversation. (2 sections.)

Prerequisite: Hebrew 10 and the instructor's permission.*Mr. Levy**Also see courses under NEAR EASTERN AND JUDAIC STUDIES.*

*Not to be given in 1964-65.

History

Professor MARVIN MEYERS, *Chairman*; President A. L. SACHAR; Professors DAVID S. BERKOWITZ, EDGAR N. JOHNSON, MORTON KELLER, LEONARD W. LEVY; Associate Professors EUGENE C. BLACK, RAYMOND S. GINGER, HEINZ M. LUBASZ (*Student Adviser*), RAMSAY MACMULLEN, MILTON I. VANGER; Assistant Professors JEROME COHEN, DAVID H. FISCHER; DR. PER A. ALIN, DR. HAROLD L. BURSTYN, MR. THOMAS HEGARTY.

Requirements for Concentration

Each student will prepare his plan of study with his faculty adviser and must have that adviser's approval for his courses.

A. Required of all Candidates:

1. One full course or the equivalent in American History.
2. History 1a or one-half course in European history before 1700; History 1b or one-half course after 1700.
3. History 97c or one proseminar in history.
4. Two and one-half courses or the equivalent offered by the Department of History.

B. Additional requirement for candidates for degrees with distinction: History 99.

Proseminars are open to qualified juniors and seniors affording the advanced student an opportunity to examine in some detail complex historical problems within relatively limited areas and periods.

In exceptional cases, History 98b may, with the permission of the Department, be used in the junior year as preparation for the honors program (History 99) in the senior year.

Politics 170a and b, NEJS 126a and b, NEJS 142a and b, NEJS 145a, and Economics 22a may be applied for history concentration credit.

For graduate courses in the History of American Civilization or the History of Ideas programs open to undergraduates, consult the catalog of the Graduate School.

Primarily for Undergraduates

HISTORY 1a. The Development of Western Thought and Institutions

The course will center on the key factors and forces which have shaped the development of Western society from the ancient to the modern world. Major emphasis will be on social, economic, and political ideas embodied in institutional developments.

Messrs. Johnson and Burstyn

HISTORY 1b. The Development of Western Thought and Institutions

Continuation of History 1a.

Messrs. Lubasz and Burstyn

HISTORY 11a. History of Greece

The political, social, economic and cultural history of Greece from the Bronze Age into the Hellenistic period.

Mr. Alin

HISTORY 12b. History of Rome

The political, social, economic and cultural history of Rome, through the Monarchy, Republic, and Empire, to about 400 A.D.

Mr. Alin

HISTORY 30bR. Expansion of Europe, 1415-1779

European colonization of the Americas, Asia, Africa, and Oceania from Prince Henry the Navigator to Captain Cook. The course will cover the social, economic and technical background to colonization, the beginnings of "colonialism" and its variation under different national regimes and in different climates, the growth of slavery, and the problem of race.

Mr. Burstyn

***HISTORY 34a. History of Europe, 1789-1848**

This course surveys European history from the French Revolution to the mid-nineteenth century. It stresses the changes which followed the Revolution and their different national forms.

***HISTORY 34b. History of Europe, 1848-1914**

This course surveys European history from 1848 to the First World War and emphasizes the quest for political, economic, and social stability in the major European states.

HISTORY 36a. The Twentieth Century

World War I and the end of an era; the depression; the Western World in shock; the rise of totalitarianism; the emergence of Soviet Russia.

Open to all upperclassmen.

Mr. Lubasz

***HISTORY 36b. The Twentieth Century**

Continuation of History 36a. Diplomacy of the 1930's; World War II; the revolt of suppressed peoples; the Cold War; the Atomic Age.

Open to all upperclassmen.

HISTORY 51a. History of the United States

An introduction to the history of the American people from the settlement of the English colonies in the seventeenth century to the Civil War, with emphasis on social and political development.

Open to freshmen.

Mr. Meyers

HISTORY 51b. History of the United States

An introduction to the history of the American people from the Civil War to the present, with emphasis on the problems of industrial society and foreign relations.

Open to freshmen.

Mr. Meyers

HISTORY 71a. Latin American History to 1890

Conquest and Empire in Spanish America and Brazil; the Wars of Independence; formative national years concentrating on Argentina, Brazil, and Mexico.

Mr. Vanger

HISTORY 71b. Latin American History, 1890 to the Present

The emergence of mass politics, revolutionary movements, economic change; Latin America's place in the world; concentrating on Argentina, Brazil, Mexico, and Cuba.

Mr. Vanger

*Not to be given in 1964-65.

HISTORY 90bR. Senior Seminar: Topics in English Constitutional History

Discussion and reports dealing with the nature of law and authority, the Crown in Parliament, the royal prerogative and parliamentary sovereignty, liberties of the subject, religious toleration, and freedom of the press. *Mr. Berkowitz*

HISTORY 91. Senior Seminar

Seminar on the United States from 1890-1941.

Prerequisites: History 154a or 154b and permission of instructor.

Each student is expected to do independent research on a single topic, bringing to bear on it the methods and insights from the several disciplines. Instruction is on a collaborative basis, in small classes meeting weekly.

Messrs. Ginger and Keller

HISTORY 97c. Junior Tutorial

Required reading in works of the great historians, reports and discussions on assigned topics. *Staff*

HISTORY 98a and b. Readings in History

A supervised reading around a specific theme, discussions and preparation of research paper or equivalent.

Open upon invitation of the Department. *Staff*

HISTORY 99. Senior Research

Seniors who are candidates for degrees with honors in history are required to register for this course and, under the direction of a member of the faculty, prepare an honors thesis on a suitable topic. *Staff*

For Undergraduate and Graduate Students**HISTORY 105b. Greek Prehistory**

Early settlements of Greece, Crete, and Troy, their inhabitants and culture in the light of archeology, with special emphasis on the Mycenaean Age. Pro-Seminar. *Mr. Alin*

HISTORY 106a. The Changing Greek City-State

Reading of sources, especially Thucydides, with modern commentary, covering the period 431 to 323 B.C. *Mr. Alin*

HISTORY 107b. Studies in the Decline of the Roman Empire**HISTORY 121. History of Social and Political Ideas in Antiquity and the Middle Ages*****HISTORY 123a. Europe in the Early Middle Ages*****HISTORY 123b. Europe in the Later Middle Ages*****HISTORY 125a. History of Medieval Political Theory****HISTORY 128. The Renaissance and Reformation in Europe**

Lectures, readings and reports on selected topics dealing with the new currents in literature, scholarship, art, political theory and religion. *Mr. Berkowitz*

***HISTORY 129a. The Renaissance and Reformation in Sixteenth Century England**

*Not to be given in 1964-65.

HISTORY 131. History of the Concept of Human Nature

Ideas on the nature of man developed in Western society since the end of the seventeenth century.

Same as Psychology 121.

Mr. Manuel

HISTORY 133. Intellectual History of Europe: The Romantics to the Existentialists

European thought in its social and political context. Lectures and reading of selected texts.

Mr. Lubasz

***HISTORY 134a. The Growth of Modern Industrial Society**

The problem of the industrial revolution in Europe with emphasis upon Great Britain, Germany, and France. This colloquium will be concerned with problems in technological and entrepreneurial history, the social implications of economic change, and the intellectual and institutional impact of these developments.

HISTORY 136a. The Scientific Revolution

A study of the origins of modern science in the sixteenth and seventeenth centuries. Some attention is paid to ancient and medieval beginnings.

Will not be given in 1965-66.

Mr. Burstyn

HISTORY 136b. Topics in the Development of Modern Science

The growth of modern science since 1700. The relation of science to society, to technology, to war, and to economic development are some of the topics treated. Students with a background in one of the sciences will be encouraged to study its internal development.

Will not be given in 1965-66.

Mr. Burstyn

HISTORY 143a. History of Russia to 1825

This course offers lectures, reports and discussion on political, social, economic, and intellectual problems in the history of Russia from the Scythians to the Decembrists.

Mr. Hegarty

HISTORY 143b. History of Russia, 1825 to 1964

This course offers lectures, reports and discussion on political, social, economic, and intellectual topics in the history of Russia from the accession of Nicholas I to the present.

Mr. Hegarty

HISTORY 144a. Modern Britain, 1760-1867

Social, economic, cultural, and political history of Britain from the reign of George III to the mid-Victorian era.

Mr. Black

HISTORY 144b. Modern Britain, 1867 to the Present

Social, economic, cultural, and political history of Britain from the Second Reform Act to the evolution of the welfare state.

Mr. Black

HISTORY 145bR. History of Germany, 1870 to 1945**HISTORY 147b. Social and Intellectual History of Russia, Eighteenth and Nineteenth Centuries**

**Not to be given in 1964-65.*

HISTORY 148b. Russian and Soviet Imperialism

The nature and effects of Russian imperialism on advanced, contiguous nationalities: the Tatars, Ukrainians, Belorussians, the Balts, the Poles, the Jews, the Georgians, the Turks, the Armenians, the people of Central Asia. *Mr. Hegarty*

HISTORY 150b. The Age of the Democratic Revolution, 1760-1830

An intensive examination of the elements and dynamics of change in politics, society, economics, and culture in Europe and America focussing upon a comparative study of France, England, and the United States.

Prerequisites: One semester course from each of the following groups:

1. History 51a, 151a, 151b, 152a

2. History 34a, 134a, 144a

Messrs. Black and Fischer

HISTORY 151a. American Colonial and Revolutionary History

An investigation of three selected topics in early American history; the Puritans in seventeenth century New England; political, economic, social, religious, and cultural development in eighteenth century America; the American Revolution.

Mr. Fischer

HISTORY 151b. The New American Republic

A study of five problems in American history, 1788-1815; the development of nationalism and sectionalism; the growth of political democracy; foreign affairs; economic expansion; and the transition from the Enlightenment to Romanticism.

Mr. Fischer

HISTORY 152a. American Political Thought: The Early Republic**HISTORY 152bR. Jacksonian Democracy**

An examination of the interpretations of democratic society and politics in the Jacksonian era, from Tocqueville to the present.

HISTORY 153b. Civil War and Reconstruction**HISTORY 154a. The Rise of Modern America****HISTORY 154bR. Modern America**

Significant historical developments in the United States since 1914: business and economic, political, constitutional, diplomatic, social, and intellectual.

Mr. Ginger

HISTORY 156a. History of American Constitutional Law and Theory

The history of the Constitution and its interpretation by the Supreme Court against the background of political and economic change from the foundations of the Republic to the Civil War. Origins and development of American constitutional thought and institutions, with stress on problems of judicial review and the role of the judiciary in defining the powers and limitations of government.

Mr. Levy

HISTORY 156b. History of American Constitutional Law and Theory

The development of American constitutional law and theory since the Civil War with the emphasis on the adaptation of the Constitution to the changing needs of American society.

Mr. Levy

*Not to be given in 1964-65.

HISTORY 157b. American Industrial Growth

A study of selected problems in the history of American industry from the eighteenth century to the present; for example, the role of government, capital formation, mobilization of the labor force, technological innovation, entrepreneurial activity, and corporate organizations. *Mr. Ginger*

HISTORY 158b. The West in American History**HISTORY 159a. Race, Religion and Nationality in American History**

A study of the impact of racial, ethnic, and religious pluralism upon American historical development and the impact of America upon its several peoples. Special attention to the history of the Negro in America.

HISTORY 160a. History of American Education

Within the limits of American history, education is broadly conceived as the transmission of culture from Europe to the new world and from an agrarian colonial society to urban, industrial America. Emphasis is placed upon the family as an educational institution. *Mr. Fischer*

HISTORY 161a,b. American Diplomatic History**HISTORY 162b. American Liberal Tradition**

An historical analysis and critique of the liberal tradition in American political and social thought, foreign policy, reform movements, literature and religion. Special attention will be paid to the significance of the new-conservatism to American liberalism.

***HISTORY 163. American Intellectual History**

The history of ideas in America from the seventeenth century to the present. The course traces the evolution of major traditions through the writings of significant figures and in relationship to significant historical events.

HISTORY 164a and b. History of American Political Institutions

An examination of American political institutions that stresses their relationship to the development of the culture at large. *Mr. Keller*

HISTORY 176a. Relations between United States and Latin America

The diplomatic, cultural, and economic interaction of Latin America and the United States from 1776 to the present. *Mr. Vanger*

HISTORY 176b. Approaches to Latin American History

Discussions based on readings in problems central to the understanding of Latin American history. *Mr. Vanger*

HISTORY 180a. History of East Asia

This course surveys through lectures, oral reports, and discussion the history of China, Japan, Korea, Manchuria, Mongolia, and Tibet in the periods before the impact of the West. *Mr. Hegarty*

HISTORY 180b. East Asia and Southeast Asia in Modern Times

This course surveys the varied response to the Western impact of China, Japan, Korea, Mongolia, Tibet, and the nations of Southeast Asia. *Mr. Hegarty*

*Not to be given in 1964-65.

History of Ideas

(See Graduate School Catalog for course offerings)

Humanities

HUMANITIES 1-12 are full year courses and cannot be divided.

HUMANITIES 1. Classics of the Western Tradition through the Renaissance

A study of major texts of the Western literary tradition with discussion of ideas and values, and training in the various methods of literary interpretation and analysis. The readings will include Homer, Greek tragedy, Plato, the Old and New Testaments, Virgil, Dante, Chaucer, Cervantes and Shakespeare. *Staff*

HUMANITIES 2. Classics of the Western Tradition from the Renaissance to the Present

An investigation of the major cultural movements in Western civilization since the Renaissance, with emphasis on the literary masterpieces. Among the authors studied are Shakespeare, Milton, Moliere, Swift, Voltaire, Rousseau, Goethe, Stendhal, Flaubert, Dostoevski, Ibsen, and Joyce. *Staff*

HUMANITIES 3. Classics of English Literature

A study of the nature of the English literary tradition and its principal masterpieces. *Miss Charlesworth*

HUMANITIES 4. Classics of American Literature

A close study of major literary works by American authors with emphasis on traditional themes and techniques. *Mr. Swiggart*

HUMANITIES 5. Classical Greek Literature in Translation

An intensive study of the major Greek writers. Readings in epic poetry, the lyric poets, the classical drama and the main historians. The literature will be considered against a background of ancient thought and art.

See CMS 5.

Mrs. Howe

HUMANITIES 6. Literature of the Bible

Introduction to the literature of the Bible; an account of its character, authorship, text, translation; reading and analysis of selected portions from the Bible in English translation.

See NEJS 13a.

Mr. Glatzer

HUMANITIES 7. Literature of the Romance Tradition

"The Spirit of Romance" as reflected in the literature of France, Italy, and Spain from the Middle Ages to the beginning of the modern period. The following works and authors will be considered: Dante's *Vita Nuova*, Castiglione, Machiavelli, Rabelais, Montaigne, Pascal; Fernando de Rojas, St. John of the Cross, the *Lazarillo de Tormes*, Calderón, Racine, Vico, Stendhal, Unamuno, and Gide.

Mr. Yglesias

HUMANITIES 10. Selected Problems in Classical Greek Literature**

In 1964-65 the central themes will be: Man, the City and the Gods.

First semester: *Oresteia*, *Prometheus Bound*, *Oedipus Tyrannus*, *Antigone*, *Oedipus at Colonus*, *Bacchae*.

**Admission on application to the Director of General Education in the School of Humanities.

Second semester: Herodotus and Thucydides.

This seminar is for freshman and sophomore students with advanced standing in the Humanities.

See CMS 12.

Mr. Benardete

HUMANITIES 12. Nature and Value

During the first semester discussion will center on major problems of values and ethics; e.g., freedom of the will, capital punishment, ethical relativism as these problems have been explored in the Western philosophy tradition. Mr. Sommers

During the second semester the discussion will center on man's cosmological views of his place in nature; the change from Greek concepts of nature to mechanistic concepts of nature in the seventeenth century and their overthrow in the nineteenth century. Mr. Diamandopoulos

Open to all students. This is a General Education course designed to satisfy the second year Humanities requirement. It does not count toward Philosophy concentration.

See Philosophy 12.

HUMANITIES 61b. The Modern Novel

Flaubert, Turgenev, Dostoevski, Tolstoi, James, Mann, Kafka, Dreiser, and Fitzgerald. Mr. Hindus

*HUMANITIES 62. Proust and Joyce

*HUMANITIES 162. Russian Fiction of the Nineteenth Century

*HUMANITIES 191. Introduction to Linguistics

HUMANITIES 192b. History of Criticism: Plato to Dryden

Mr. Cunningham

Italian Language and Literature

ITALIAN 1. Introductory Italian

Italian 1 is a full year course and may not be dropped with credit at midyear.

Mr. Affron

*ITALIAN 3a. Conversation and Composition

Prerequisite: Italian 1 or permission of the instructor.

ITALIAN 5a. Accelerated Second Year Italian

An *intensive* one-semester course for students whose placement score or performance in Italian 1 indicates an advanced preparation.

Prerequisite: Permission of the Coordinator or the Chairman.

Mr. Volpe

ITALIAN 10aR. Readings in Italian Literature

Prerequisite: Italian 5a, appropriate placement score, or permission of the instructor.

Mr. Volpe

ITALIAN 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the Coordinator or the Chairman.

Staff

*Not to be given in 1964-65.

Latin

See Classical and Mediterranean Studies.

Latin American Studies

Committee: Assistant Professor ARNOLD STRICKON, *Chairman and Student Adviser for Anthropology*; Professors JOSEPH S. BERLINER, JOHN P. ROCHE; Associate Professors DENAH L. LIDA (*Student Adviser for Spanish*), MILTON I. VANGER (*Student Adviser for History*), RICHARD S. WECKSTEIN; Assistant Professors GEORGE L. COWGILL, DONALD HINDLEY (*Student Adviser for Politics*), DAVID KAPLAN; MR. LUIS E. YGLESIAS.

Requirements for Concentration

A. Anthropology 11a, 120b, 124a; Economics 75a. History 71a and b; History 176a or b; Politics 166a and b. Spanish 106b; Spanish 160aR, or 160bR or 162bR.

B. Two additional full courses in *one* of the following disciplines: Anthropology, History, Politics, Spanish. One half course will be tutorial. Each student will choose a discipline and be assigned an adviser in that discipline with special competence on Latin America.

C. Senior Honors: Candidates for honors must be approved by the Committee on Latin American Studies.

A summer or a summer and a semester of research and study in Latin America is recommended.

LATIN AMERICAN STUDIES 97c. Junior Tutorial

Readings in either the anthropology, history, politics, or literature of Latin America. Staff

LATIN AMERICAN STUDIES 98c. Independent Study

Readings and reports under faculty direction. May be taken only with the permission of the Chairman. Staff

LATIN AMERICAN STUDIES 99. Senior Research

Students who are candidates for degrees with distinction must register for this course and prepare, under faculty direction, an honors thesis. Staff

ANTHROPOLOGY 11a. Anthropology and the Problems of Developing Areas

†ANTHROPOLOGY 111b. New World Archeology

†ANTHROPOLOGY 114a. Origins of Early Civilizations

†ANTHROPOLOGY 118b. Civilization of Middle America

ANTHROPOLOGY 120b. Modern Cultures of Middle America

ANTHROPOLOGY 121b. Civilizations of South America

ANTHROPOLOGY 124a. Folk and Peasant Cultures of Post-Conquest South America

ECONOMICS 75a. The Economics of Underdeveloped Countries

HISTORY 71a. Latin American History to 1890

†Recommended.



HISTORY 71b. Latin American History, 1890 to Present

HISTORY 176a. Relations between the United States and Latin America

HISTORY 176b. Approaches to Latin American History

POLITICS 166a. The Politics of Northern Latin America

POLITICS 166b. The Politics of Southern Latin America

SPANISH 106b. Studies in Advanced Spanish Conversation and Composition

SPANISH 160aR. Major Trends in Modern Latin American Literature

SPANISH 160bR. Latin American Literature and Revolution

SPANISH 162bR. Studies in Argentine and Brazilian Literature

Mathematics

Professor JOSEPH J. KOHN, *Chairman*; Professors MAURICE AUSLANDER, DAVID BUCHSBAUM, EDGAR H. BROWN, JR., T. MATSUSAKA, PIERRE SAMUEL; Associate Professors WILLIAM HOYT, HAROLD LEVINE, RICHARD PALAIS (*Student Adviser*), DOCK SANG RIM, HUGO ROSSI, ROBERT SEELEY; Assistant Professor ARLAN B. RAMSAY; DR. KENNETH IRELAND, MR. MICHAEL SPIVAK, MR. CHARLES STENARD, DR. ALOIS SVEC, DR. ALPHONSE T. VASQUEZ.

Requirements for Concentration

To be accepted for concentration in Mathematics a student must have his program for his junior and senior years approved by the Mathematics Department by the end of his sophomore year. No student with a grade of less than C in Mathematics 21 or 22 may concentrate in Mathematics.

The following courses are required for concentration in Mathematics: Mathematics 11 and 21, or Mathematics 12 and 22; Mathematics 30; Mathematics 35 or 40; Mathematics 33a and 33b and two one-semester electives. In addition, a concentrator must take one year of physics and one additional year course in the School of Science, the entire program to be approved by the Department.

Two semester courses in the 100 series of Mathematics are required for a degree with distinction.

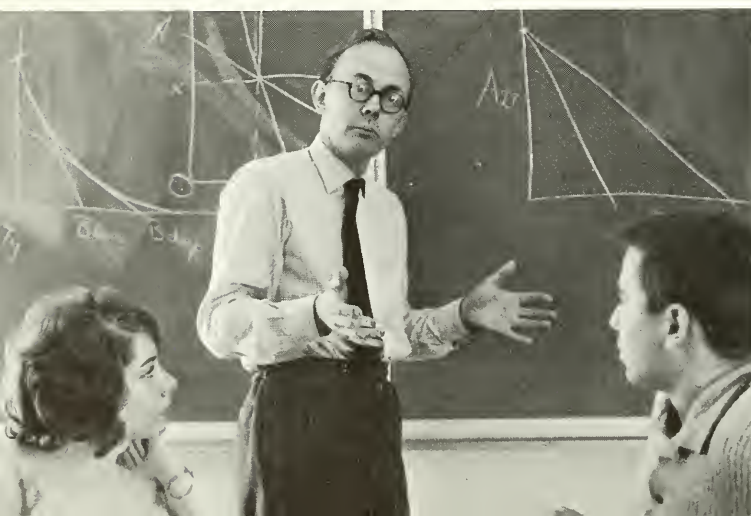
Information for Freshmen

Students who expect to take a course in Mathematics are advised to do so in their first year.

A normal program for a freshman intending to concentrate in Mathematics should include mathematics and physics; either the Humanities or Social Science General Education requirements may be postponed to the sophomore year.

The Department will recommend a particular mathematics course for each entering student; the recommendation is based upon an estimate of the student's ability and preparation.

Mathematics 10, 11 and 12 will have an optional fourth class hour each week devoted to the mechanical aspects of the subject. Students are strongly advised to attend.



Primarily for Undergraduates

MATHEMATICS 1. Elements of Mathematics

Selected topics for students who do not plan to major in the sciences. The purpose of the course is to introduce the student to some of the pleasures and hardships encountered in mathematics.

Mr. Ramsay

MATHEMATICS 10. Analytic Geometry and Calculus I

Plane analytic geometry, functions, rate of change, elementary notions of integration.

Mr. Palais

MATHEMATICS 11. The Calculus I

Analytic geometry, functions, limits, differentiation and integration.

Messrs. Seeley and Spivak

MATHEMATICS 12. Introduction to Analysis I

A rigorous foundation of the concepts of the calculus and analytic geometry.

Mr. Rossi

MATHEMATICS 20. Analytic Geometry and Calculus II

Continuation of Mathematics 10.

Prerequisite: Mathematics 10 or 11.

Mr. Buchsbaum

MATHEMATICS 21. The Calculus II

Continuation of Mathematics 11.

Prerequisite: Mathematics 11. Students who wish to take this course and who have not taken Mathematics 11 or 12 must pass an examination which will be given at the beginning of the Fall term.

Mr. Stenard

MATHEMATICS 22. Introduction to Analysis II

Continuation of Mathematics 12.

Prerequisite: Mathematics 12.

Mr. Brown

MATHEMATICS 30. Linear Algebra

Basic concepts in modern algebra; i.e., groups, rings, fields, vector spaces, linear transformations and matrices with special emphasis on linear algebra.

Prerequisite: Mathematics 10 or 20 or the consent of the instructor.

Mr. Auslander

*MATHEMATICS 31a. Differential Geometry

Curves and surfaces in Euclidean space, differential manifolds, Riemannian metrics, geodesics, tensors, general theory of relativity.

Prerequisite: Mathematics 21.

*MATHEMATICS 32b. Projective Geometry

Selected topics in geometry.

Prerequisite: Mathematics 21.

MATHEMATICS 33a and b. Selected Topics in Algebra

For 1964-65, the topics will be Galois theory and elementary number theory.

Prerequisite: Mathematics 21 or 22.

Mr. Matsusaka

MATHEMATICS 34b. Topology

An introduction to topology.

Prerequisite: Mathematics 21 or 22.

Mr. Levine

*Not to be given in 1964-65.

MATHEMATICS 35. Analysis III

Fourier series, differential forms (line and surface integrals), ordinary differential equations, boundary value problems, calculus of variation.

Prerequisite: Mathematics 21 or 22.

Mr. Ireland

MATHEMATICS 36a. Probability

Combinatorial analysis, random variables, frequency, and distribution functions, central limit theorem, special distribution functions (binomial, normal, Poisson, etc.).

Prerequisite: Mathematics 11.

Mr. Ramsay

MATHEMATICS 40. Analysis

Real numbers, metric spaces, Weierstrasse approximation theorem, fundamental existence theorems, implicit function theorem, complex variables, and Fourier theory.

Prerequisite: Mathematics 30.

Mr. Kohn

MATHEMATICS 99. Senior Research

Staff

For Undergraduate and Graduate Students

All undergraduates who plan to take a graduate course in mathematics must arrange for an interview during registration week and must obtain written departmental approval at that time.

MATHEMATICS 101a and b. Algebra I

Groups, rings, fields, Galois theory, representations and modules.

Mr. Auslander

MATHEMATICS 111a and b. Analysis I

Metric spaces, Frechet differentiability, fundamental existence theorems, complex variables and Lebesgue integration.

Mr. Rossi

MATHEMATICS 121a and b. Point Set Topology

Set theory, topological spaces, function spaces and covering spaces. *Mr. Brown*

MATHEMATICS 140. Analysis

Same as Mathematics 40.

Graduates register for Mathematics 140.

Mr. Kohn

Primarily for Graduate Students

(See Graduate School Catalog for course descriptions)

MATHEMATICS 199. Problem Seminar

Staff

MATHEMATICS 201. Algebra II

Messrs. Samuel and Buchsbaum

MATHEMATICS 202a and b. Algebraic Geometry I**MATHEMATICS 203a and b. Algebraic Number Theory I*****MATHEMATICS 204a or b. Homological Algebra I****MATHEMATICS 211. Analysis II**

Mr. Seeley

*Not to be given in 1964-65.



—Wide World Photos

*MATHEMATICS 212a. Functional Analysis

*MATHEMATICS 212b. Harmonic Analysis

MATHEMATICS 221a and b. Algebraic Topology I

Mr. Vasquez

*MATHEMATICS 222. Differential Geometry

MATHEMATICS 291. Algebra Seminar *Messrs. Auslander, Buchsbaum and Matsusaka*

MATHEMATICS 292. Analysis Seminar *Messrs. Kohn, Rossi and Seeley*

MATHEMATICS 293. Topology Seminar *Messrs. Brown and Palais*

MATHEMATICS 298a or b. Readings in Mathematics *Staff*

*MATHEMATICS 301a or b. Homological Algebra

*MATHEMATICS 302a and b. Algebraic Geometry II

MATHEMATICS 303a and b. Algebraic Number Theory II *Mr. Ireland*

*MATHEMATICS 311a or b. Fourier Analysis

*MATHEMATICS 312a and b. Selected Topics in Complex Variables

*MATHEMATICS 313. Group Representation and Analysis of Groups

*MATHEMATICS 321a or b. Algebraic Topology II

MATHEMATICS 322a and b. Differential Topology *Mr. Palais*

*MATHEMATICS 323a or b. Lie Algebras

*MATHEMATICS 324a or b. Lie Groups

*MATHEMATICS 325a or b. Complex Manifolds

MATHEMATICS 400. Doctoral Dissertation *Staff*

Mediterranean Studies

See Classical and Mediterranean Studies.

*Not to be given in 1964-65.

Music

Professor KENNETH J. LEVY, *Chairman*; Professors ARTHUR BERGER, ERNST KRENEK, HAROLD SHAPERO; Associate Professors PAUL H. BRAINARD (*Student Adviser*), ROBERT L. KOFF, CALDWELL TITCOMB; Assistant Professor MARTIN BOYKAN; MISS MADELINE FOLEY, MR. EUGENE LEHNER, MR. ALVIN LUCIER, MR. JOEL SPIEGELMAN, MR. MICHAEL STEINBERG.

The program of concentration aims to provide an awareness of the systematic basis of music and its history, skill in the use of theoretical and compositional tools, and a close acquaintance with representative musical literature.

Before admission to concentration, candidates will normally pass Music 61 during their freshman year, with a satisfactory grade, and must undergo an examination to test keyboard competence, sight reading at the piano, and aural perception. Instruction under the Basic Piano program is offered during the sophomore and junior years for those who are deficient at the keyboard. The required proficiency must normally be demonstrated by the end of the junior year. No fee is charged for this instruction and no credit is granted.

During at least one of their three years as concentrators, students must sing in the Chorus. During the other two years, they must participate regularly in either the Chorus or the Ensemble. (Consult Music C and Music E, below, for the conditions under which credit is granted toward the A.B. degree for this activity.)

Requirements for Concentration

A. Required of all Candidates: Music 61, 98c, 102, 103, 152 or 162, 153 or 163, 165a.

All concentrators in Music are also expected to participate regularly in the Chorus or Ensemble Workshop, and in the non-credit Music Colloquium. Not more than a total of 6 credits in Music C and E will be counted toward the A.B. degree.

B. Elective Courses: Select from the music courses (including Music C and E but excluding Music 1 and 5) a sufficient number to fill out the requirement of seven full courses. With the permission of the Music faculty, any other full course in Creative Arts may be substituted.

C. All concentrators must pass a four-hour departmental Comprehensive Examination near the end of their senior year.

D. Additional Requirement for candidates for degrees with distinction: To be eligible for high honors in music at graduation candidates must demonstrate superior ability through their over-all record, and a capacity for independent thought beyond the limits of their course program.



Primarily for Undergraduates

MUSIC 1. Introduction to Music

A general introduction to the materials and forms of music, and a study of musical literature from ancient times to the present.

Two lectures and one section meeting weekly, with training in analytical listening, based on selected listening assignments.

A full course, not divisible.

Open to non-concentrators. It is assumed that the student has no previous knowledge of music. Mr. Levy

MUSIC 5a. Fundamentals of Music

Elementary theory for the general student with little or no musical background; notation; scales; melody construction; elementary concepts of theory.

Open to non-concentrators.

Mr. Lucier

MUSIC 5b. Fundamentals of Music

A continuation of Music 5a.

Mr. Lucier

MUSIC 28b. Contemporary Music

A survey of western music from Mahler to the present. The Viennese school; early atonalists; Schonberg and twelve-tone writing; Webern, Berg, and modern serial composers; Russian and French moderns; Stravinsky, Ravel, Milhaud; the nationalists; Sibelius, Vaughan-Williams; Soviet composers; Prokofiev and Shostakovich; the neo-classicists; Hindemith and Bartok; modern American composers; new horizons in sound; *musique concrete*; music for tape recorder; music for electronic synthesizer.

Prerequisite: Any course in music or permission of the instructor.

Mr. Steinberg

*MUSIC 33a. Renaissance and Baroque Keyboard Music

A survey of the literature for harpsichord and clavichord, including a detailed study of the historical evolution of those instruments. Emphasis will be placed on the keyboard works of J. S. Bach.

Prerequisite: Music 1 or permission of the instructor.

*MUSIC 34a. The Literature of Chamber Music: Baroque and Classical

Prerequisite: Music 1 or permission of the instructor. *Given in alternate years.*

MUSIC 35b. The Literature of Chamber Music: Romantic and Modern

A study of the historical, structural, and stylistic aspects of the chamber music repertoire.

Prerequisite: Music 1 or permission of the instructor. *Given in alternate years.* Mr. Koff

MUSIC 37a. The Symphony

A survey of the symphonic literature from the works of Haydn and Mozart through the twentieth century. Examples will be chosen from the works of Beethoven, Schubert, Mendelssohn, Schumann, Brahms, Tchaikovsky, Mahler and others.

Prerequisite: Any course in music or permission of the instructor. Mr. Steinberg

*Not to be given in 1964-65.

MUSIC 38b. The Opera

A survey of the development of opera from its beginnings in the later sixteenth century to the present. Examples will be chosen from the works of Monteverdi, Purcell, Handel, Gluck, Mozart, Weber, Rossini, Bellini, Wagner, Verdi, Moussorgski, Puccini, Berg and Stravinsky.

Two lectures and one section meeting weekly.

Prerequisite: Any course in music or permission of the instructor. *Mr. Boykan*

***MUSIC 42a. Bach and Handel**

A study of the two chief Baroque composers, their background, and their contemporaries.

Two lectures and one section meeting weekly.

Prerequisite: Any course in music or permission of the instructor.

MUSIC 45a (formerly 81a). Beethoven

A study of the man and his works, seen against the background of political, esthetic, and stylistic issues of his time.

Prerequisite: Music 1 or permission of the instructor.

Mr. Koff

***MUSIC 47b. Wagner and Verdi**

A study of the two major nineteenth century opera composers.

Two lectures and one section meeting weekly.

Prerequisite: Music 1 or permission of the instructor.

MUSIC 61. Theory I

Elementary harmony and counterpoint. The tonal system; scales, intervals, triads, seventh chords. Strict counterpoint in five species.

Before admission to the course, students must pass a preliminary ear test and will be expected to demonstrate minimal ability to read music.

Three class meetings, and a two-hour laboratory session (keyboard harmony, harmonic and contrapuntal analysis).

Students intending to concentrate in Music should pass this course with a satisfactory grade in the freshman year unless they have an equivalent preparation. In no case may a student take the course later than the sophomore year.

Mr. Spiegelman

MUSIC 98c. Tutorial in Music History and Literature

Guided reading and research in the history and literature of music.

Required of senior concentrators in Music and open without credit to graduate students.

Mr. Boykan

MUSIC 99c. Senior Research

Independent study under faculty supervision. A student whose grade point average in music is 3.0 or above may petition at the end of his junior year for permission to enter this course.

Staff

***MUSIC 102. Historical Analysis of Music to 1750**

Studies in the development of musical idioms and forms, and of the relation of music to society. Detailed analysis of representative works, collateral reading, papers on assigned topics.

*Not to be given in 1964-65.

Prerequisite: Music 61 and an intermediate theory course. To be taken in the junior or senior year.

Offered in alternate years.

MUSIC 103. Historical Analysis of Music from 1750 to the Present

Studies in the development of musical idioms and forms, and of the relation of music to society. Detailed analysis of representative works, collateral reading, papers on assigned topics.

Prerequisite: Music 61 and an intermediate theory course. To be taken in the junior or senior year.

Offered in alternate years.

Mr. Brainard

*MUSIC 104a. Twentieth Century Music

A survey of the techniques and tendencies in music from *Pierrot Lunaire* and *Le Sacre du Printemps* to the serial and aleatoric scores of the younger generation that has emerged in America and Europe since World War II.

Prerequisite: Music 152 or permission of the instructor.

MUSIC 134c. Studies in the Analysis and Performance of Chamber Music

A discussion of advanced problems in performance and interpretation. Written work will include papers on selected topics.

Two hours a week, with the Ensemble as a required laboratory session for which no additional credit is given.

Prerequisite: Advanced instrumental proficiency and permission of the instructor.

Mr. Koff

MUSIC 153. Principles of Counterpoint

Studies in strict, modal, and tonal contrapuntal writing.

Prerequisite: Music 51 or 61.

Two class meetings and two laboratory sessions.

This course is to be dropped in 1965-66 and superseded by Music 163.

Mr. Boykan

MUSIC 162. Theory II

Intermediate harmony and counterpoint. Secondary sevenths, ninths, altered chords. Tonal counterpoint.

Laboratory two hours per week; keyboard harmony, harmonic and contrapuntal analysis.

Mr. Shapero

*MUSIC 163. Theory III

Advanced harmony and counterpoint. Chromatic harmony. Modal counterpoint. Introduction to twentieth century materials.

Laboratory two hours per week: keyboard harmony, harmonic and contrapuntal analysis.

To be given starting in 1965-66.

MUSIC B. Basic Piano

Instruction for concentrators deficient at the keyboard.

No fee. No credit.

Mr. Spiegelman

*Not to be given in 1964-65.

MUSIC C. Chorus

The Brandeis Choral Union consists of the Brandeis Chorus, open to all qualified students, faculty and staff; and the Brandeis Chamber Chorus, a smaller group of more advanced singers devoted to performance of contemporary music and works especially prepared for the Collegium Musicum.

Two credits per annum. No credit is given for one semester's participation, nor is credit given for two separate semesters in different years. Maximum credit is six semester hours. This course may not be counted in computing the student's total work load. An excessive number of unexcused absences will disqualify students from receiving credit. Chorus may be taken as an extra-curricular activity without credit.

Required of all concentrators for at least one year.

Three hours each week.

Mr. Lucier

MUSIC E. Ensemble and Chamber Orchestra

Two credits per annum. Open to qualified instrumentalists interested in chamber music performance. Although this is an independent activity it also serves as a laboratory for Music 134c. Maximum credit, six semester hours. No credit is given for anything less than one continuous year's activity. Members of this group will join with the Chorus from time to time in the performance of larger scale works.

Requirements for admission: An audition before the supervisor of performing activities and his staff.

Mr. Koff and Staff

MUSIC M. Advanced Instrumental and Vocal Instruction

For Music concentrators only.

Private study with teachers approved by the department. Limited grants in aid, when available, will be allocated on a competitive basis to concentrators who, in an audition before a faculty panel, exhibit unusual talent in performance, and who demonstrate financial need.

No credit.

For Undergraduates and Graduates**MUSIC 165a. Elementary Orchestration**

The instruments of the orchestra: their construction, ranges, and playing techniques, with a consideration of their use by major composers; the methods of writing effectively for present-day instruments, individually and in combination; the mechanics of reading and writing a score.

Written exercises, analysis of scores, study of recorded performances, and live demonstrations.

Prerequisite: Music 61. Music 153 or 162 is also recommended.

Mr. Shapero

MUSIC 165b. Intermediate Orchestration

A continuation of Music 165a.

Prerequisite: Music 165a or equivalent.

Mr. Shapero

MUSIC 167. Composition in Traditional Forms

The melodic phrase; types of accompaniment; studies in harmonic rhythm; trio forms, rondo forms, sonata forms, variation forms, and free forms. Analysis and exercises.

Prerequisites: Music 152 and 153 or their equivalents.

Mr. Berger

***MUSIC 171b. History and Practice of Music Criticism**

An examination of music criticism from the Baroque to the present day, with special attention to important nineteenth and twentieth century critics.

Prerequisite: A knowledge of music history and theory.

***MUSIC 180. Ethnomusicology**

Prerequisite: Music 162 or equivalent.

To be given in 1965-66.

MUSIC COLLOQUIUM

Discussions of special topics led by the faculty and occasional guests. Some of the sessions will include performances of new works. Required of graduate students and concentrators in music.

No credit.

Staff

Primarily for Graduate Students

(See Graduate School Catalog for course descriptions)

MUSIC 200. Materials of Research*MUSIC 201. Collegium Musicum**

Mr. Brainard and Staff

MUSIC 203. Advanced Musical Analysis*MUSIC 222. Seminar in Medieval and Renaissance Music**

Mr. Levy

MUSIC 223. Seminar in Baroque Music

Mr. Brainard

MUSIC 224. Seminar in Pre-Classical and Classical Music**MUSIC 225. Seminar in Romantic Music*****MUSIC 228. Seminar in Twentieth Century Techniques*****MUSIC 231a. Studies in the History of Liturgical Chant*****MUSIC 232. Problems in Early Notation*****MUSIC 233b. Problems in Sixteenth Century Music****MUSIC 238. Studies in Contemporary Music**

Mr. Berger

MUSIC 263. Canon and Fugue

Mr. Shapero

MUSIC 292. Seminar in Composition

Messrs. Berger and Krenek

MUSIC 295b. Problems in Electronic Music

Mr. Krenek

MUSIC 299. Individual Research and Advanced Work

Staff

MUSIC 400. Direction of Doctoral Dissertation

Staff

*Not to be given in 1964-65.

Near Eastern and Judaic Studies

Professor NAHUM N. GLATZER, *Chairman*; Professors ALEXANDER ALTMANN, ERWIN R. GOODENOUGH; Associate Professors BENJAMIN HALPERN, DAVID NEIMAN; Assistant Professors BARUCH LEVINE (*Student Adviser*), HOWARD M. SACHAR, ABRAHAM UDOVITCH; MR. SHELDON R. BRUNSWICK, DR. NORMAN K. GOTTWALD, DR. NORMAN D. GREENWALD, MR. AVIGDOR LEVY, MISS RUTH ROSENBERG, MR. LEONARD ZION.

Requirements for Concentration

Students are given a choice of concentrating either in (a) Hebrew literature or (b) Near Eastern and Judaic Studies. In either field of concentration students must take five full courses beyond the level of Hebrew 2.

A. Required of all Candidates: Hebrew 1, 2, 10.

B. Elective Courses: Select sufficient courses to fill out the requirement of five full courses. Any course in NEJS with the approval of the instructor. Concentrators who take Arabic or its equivalent, may be exempt from Hebrew 10.

C. Additional requirement for candidates for degrees with distinction: NEJS 99.

Primarily for Undergraduates

*NEJS 10. History of the Ancient Mediterranean

For description see CMS 60.

NEJS 13a. Literature of the Bible

Introduction to the literature of the Bible; an account of its character, authorship, text, translation; reading and analysis of selected portions from the Bible in English translation.

Concentrators in Near Eastern and Judaic Studies who take this course will have to fulfill additional assignments within the scope of the course.

Open to freshmen and sophomores only.

See Humanities 6.

Messrs. Glatzer and Neiman

NEJS 13b. Literature of the Bible

Continuation of NEJS 13a; the Prophets and the Writings will be read. Either term may be taken independent of the other.

Open to freshmen and sophomores only.

Messrs. Glatzer and Neiman

*Not to be given in 1964-65.



***NEJS 14a. Judaic Literature of the Greco-Roman Period**

A study of Jewish classics of the Hellenistic period. Selected works (in translation) will include science, philosophy, history, religion, and ethics, chosen from the Biblical Apocrypha, Philo of Alexandria, Josephus, and the Dead Sea Scrolls.

Mr. Neiman

***NEJS 14b. Judaic Literature of the Greco-Roman Period**

Continuation of NEJS 14a.

Mr. Neiman

NEJS H20a. Modern Jewish History (Hiatt Institute)

An intensive survey course, beginning with the Enlightenment in Western Europe and the Partitions of Poland in Eastern Europe, emphasizing the struggle for Jewish emancipation and the rise of Jewish nationalism in the nineteenth and twentieth centuries. Particular attention is devoted to the diplomatic and political factors responsible for Jewish Statehood in Palestine. *Messrs. Greenwald and Tal*

NEJS 99. Senior Research

Staff

For Undergraduate and Graduate Students

NEJS 101. Basic Arabic

An introduction to literary Arabic (classical and modern). Grammar. Reading of graded texts. Drills in pronunciation.

Open to students who have not previously had instruction in Arabic.

Mr. Udovitch

NEJS 102. Intermediate Arabic

Advanced grammatical study coupled with selected readings from representative classical and modern texts.

Prerequisite: NEJS 101 or its equivalent. Consent of instructor required prior to enrollment.

Mr. Udovitch

***NEJS 104a. Biblical Aramaic**

Biblical Aramaic and its relationship to Sam'al Aramaic and to *Reichsaramäisch*. Analysis of Biblical and Egyptian Aramaic texts.

Prerequisite: Knowledge of Biblical Hebrew.

***NEJS 105a. Syriac**

Introductory course. Grammar and simple texts.

NEJS 106b. Ugaritic Literature

An introduction to Ugaritic language and script. Readings in simple prose texts and in one of the poetic epics.

Mr. Neiman

NEJS 107. Egyptian History and Civilization

For description see CMS 101.

Mr. Gordon

NEJS 108. Basic Turkish

Grammar and selected readings in modern and Osmanli Turkish. Knowledge of Arabic or Persian is helpful but not necessary.

Mr. Levy

*Not to be given in 1964-65.

NEJS 109a. Archeology and the Bible

Palestinian archeology in the context of Near Eastern archeology and Israelite history. Contribution of archeology to the solution of Biblical problems.

Mr. Gottwald

NEJS 110a. Literary Forms of the Bible

The course will concentrate on three major literary forms: the Biblical narrative, the Psalm, the legal text. Ancient Near Eastern parallels will be considered.

Prerequisite: Reading knowledge of classical Hebrew. *Miss Rosenberg*

***NEJS 111a. History of Biblical Research**

Brief account of traditional Biblical interpretation. The rise of scientific study of the Bible. The methods, chief representatives, and major results of the following types of scientific Bible study: historical-literary criticism, religio-historical interpretation, form criticism.

NEJS 112a. Biblical Hebrew: Language

A systematic introduction to Biblical grammar (including syntax). A selection of pertinent texts will be studied.

Mr. Levine

NEJS 112b. Biblical Hebrew: Readings of Texts

Continuation of NEJS 112a.

Mr. Levine

NEJS 113a. The Book of Exodus

Reading of Exodus in the light of extra-Biblical sources. Analysis of early Hebrew law in the context of ancient Near Eastern legal systems.

Mr. Neiman

***NEJS 115b. The Wisdom Literature: Job, Proverbs, Ecclesiastes**

Interpretation and analysis of the text and selection of classical commentaries.

***NEJS 116a. The Book of Job and the Problem of Evil**

A reading of the Book of Job (in English translation) and a discussion of the role of the book in the literature and thought of the western world; the problem of evil in Judaism and Christianity.

***NEJS 117b. The Dead Sea Scrolls**

The Bar Kokhba Scrolls and other non-literary texts.

***NEJS 118a. Amos and Hosea**

A study of Amos and Hosea, examining the concepts underlying their prophecies; the nature of the prophetic experience, the sources of prophetic inspiration and the nature of the prophetic expression.

NEJS 118b. The Prophecies of Jeremiah

A reading of the Book of Jeremiah. The nature of the Israelite prophetic experience. Elements of Hebrew poetry. Readings in the Lachish Letters and in other Biblical books relevant to Jeremiah.

Mr. Neiman

NEJS 119a. Talmudic Literature

Readings and analysis of a selected tractate.

Mr. Levine

***NEJS 120b. Readings in Talmudic Literature**

*Not to be given in 1964-65.

NEJS 121a. Introduction to Jewish Mysticism

An analysis of the sources and motives contributing to the rise of medieval Jewish mysticism. The stages of the development from the close of the Talmudic period to the appearance of the *Zohar* and down to Isaac Luria. *Mr. Altmann*

***NEJS 121b. Selected Texts from Genesis Rabba**

A study of the earliest documents of Midrashic speculation on cosmological and kindred problems. Tracing of Hellenistic, especially Gnostic sources. The origins of Jewish mysticism.

***NEJS 122a. Classical Bible Commentaries**

Selected texts, primarily from Nahmanides' commentary; introduction to the history of medieval Bible commentaries.

***NEJS 126a. History of the Jews in Antiquity and the Middle Ages**

The organization and function of the Jewish community; intellectual developments and changes in religious doctrine; mysticism; Messianic movements; the Jewish community in European economic life.

***NEJS 126b. History of the Jews in Modern Times**

The emancipation of the Jews in Western Europe; the Haskalah movement. The great migrations to the West. Renaissance of Hebrew culture; anti-Semitism; Zionism. Problems of contemporary Jewish life in the United States.

NEJS 133b. Medieval Hebrew Poetry

Background and development of medieval Hebrew literature with special attention to the impact of Islamic culture on Hebrew poetry. Readings in the poetry of Samuel ha-Nagid, Ibn Gabirol, and Judah ha-Levi.

Prerequisite: Reading knowledge of classical Hebrew. *Miss Rosenberg*

NEJS 135a. Maimonides' Guide to the Perplexed

A study of selected chapters as focal points in the development of medieval Jewish philosophy. A knowledge of Hebrew is required. *Mr. Altmann*

***NEJS 135b. Medieval Jewish Philosophy**

A survey of Jewish philosophy in the period following Maimonides until the Renaissance.

NEJS 138a. Modern Hebrew Poetry

Extensive readings in the poetry of H. N. Bialik and Saul Tchernichowsky in the context of contemporary European literature. *Miss Rosenberg*

NEJS 138b. Modern Hebrew Prose

An examination of ideological and formal problems of the modern Hebrew short story through selected readings. *Miss Rosenberg*

NEJS 139a. Selected Works in Modern Hebrew Prose**NEJS 139b. Selected Works in Modern Hebrew Poetry**

*Not to be given in 1964-65.

NEJS 141a. Survey of Yiddish Literature of the Twentieth Century

See Yiddish 120a.*Mr. Astour*

NEJS 142a. History of Islam

History of the medieval Islamic world from its inception up to the decline of the *Mamluks* and ascendancy of the Ottoman Turks. The social, economic, and intellectual development will be outlined with special emphasis on relations with the medieval West.

Mr. Udovitch

NEJS 142b. History of Islam

Continuation of NEJS 142a.

Mr. Udovitch

*NEJS 144a. Introduction to the Modern Near East

The geography, demography and society of the modern Near East. The ethnic-religious and linguistic character of the region. The process of urbanization and industrialization; the cultural influences of the West.

NEJS 145a. History of the Modern Near East

The rise of nationalism and political change in the Ottoman Empire and its successor states, with special emphasis on the role of the Great Powers and the Palestine question.

Mr. H. M. Sachar

*NEJS 147a. The Near East in World Affairs

The Near East's role in international politics, with stress on Great Power rivalry since 1945.

NEJS 148b. History and Politics of Modern Egypt

Historical and political developments since 1800, with stress on the period since 1918.

Mr. Greenwald

NEJS 149a. History of Palestine and Contemporary Israel

Topics in the diplomatic history of the region. Bibliography, problems, methods of research.

Mr. Halpern

NEJS 160a. American Jewish Social and Institutional History in the Nineteenth Century

The immigrants, their origins and integration. Development of religious institutions, associations and community organization through the rise of political Zionism.

See Contemporary Jewish Studies.*Mr. Halpern*

NEJS 160b. American Jewish Social and Institutional History in the Twentieth Century

The impact of Eastern European immigrants upon the American Jewish community. Emergence of America as a center of world Jewry in the First and Second World Wars.

See Contemporary Jewish Studies.*Mr. Halpern*

*Not to be given in 1964-65.

NEJS 166a. Modern Jewish Intellectual History to 1870

Jewish ideologies and movements from the Enlightenment to the rise of political anti-Semitism.

See Contemporary Jewish Studies.

Mr. Halpern

NEJS 166b. Modern Jewish Intellectual History since 1870

Jewish ideologies and movements from the rise of political anti-Semitism to the present.

See Contemporary Jewish Studies.

Mr. Halpern

NEJS 167a. The Literature of the Holocaust

A seminar which will study the literary record and interpretation of the Nazi experience as it appears in representative works of fiction and non-fiction.

See Contemporary Jewish Studies.

Miss Syrkin

NEJS 168a. Judaism and Contemporary Social Issues

Readings from Jewish sources in translation reflecting root ethical traditions and responsa.

See Contemporary Jewish Studies.

Mr. Zion

NEJS 168b. Judaism and Contemporary Social Issues

An examination of the relationship of Jewish ideologies to critical problems within organized labor and management, work and leisure, community renewal, war and peace, church and state, public policy and individual freedom.

Mr. Zion

NEJS 182c. Introduction to Jewish Bibliography

A survey of bibliographical and reference works and research tools for Jewish and cognate research from earliest to modern times. Practice in annotated subject bibliographies.

Mr. Brunswick

Primarily for Graduate Students

(See Graduate School Catalog for course descriptions)

NEJS 205. The Eastern Mediterranean in the Bronze Age

Mr. Astour

NEJS 225b. North-West Semitic Inscriptions

Mr. Levine

NEJS 235a. Elementary Babylonian: Language and Legal Texts

Mr. Neiman

NEJS 251a. The Legend of Daniel-Aqhat**NEJS 251b. The Legend of King Kret****NEJS 255. Greek Religion and Judaism**

Mr. Goodenough

NEJS 258b. Eschatological Theories

Mr. Glatzer

NEJS 263b. Pro-Seminar on the History of Modern Palestine and Israel

Mr. Halpern

NEJS 320. Readings in Jewish History

Mr. Glatzer

NEJS 321. Readings in the History of the Ancient Near East

Mr. Neiman

NEJS 322a. Readings in Medieval Jewish Philosophy

Mr. Altmann

*Not to be given in 1964-65.



NEJS 323. Readings in Hellenistic Literature

NEJS 325. Readings in Biblical Texts

NEJS 326. Readings in Arabic Literature

NEJS 327. Readings in Syriac Literature

NEJS 328. Readings in Modern Hebrew Literature

NEJS 330. Readings in Yiddish Literature

*NEJS 360a. Source Studies in Jewish History: Second Commonwealth

*NEJS 370a. Medieval Doctrine of the Intellect

*NEJS 375a. The Zohar: Selected Texts

*NEJS 380a. Moses Mendelssohn and Beginnings of Modern Jewry

NEJS 400. Dissertation Colloquium

To be announced

Messrs. Levine and Neiman

Staff

Mr. Levine

To be announced

Mr. Astour

Messrs. Altmann, Glatzer, Greenwald, Halpern, Neiman

*Not to be given in 1964-65.

Philosophy

Associate Professor FREDERIC T. SOMMIERS, *Chairman*; Professor NELSON GOODMAN; Associate Professors PETER DIAMANDOPOULOS, HAROLD WEISBERG; Assistant Professors DANIEL C. BENNETT, GERASIMOS X. SANTAS, JOHN VICKERS (*Student Adviser*).

Requirements for Concentration

A. Required of all Candidates: Philosophy 11a, 11b, 15a, 17b, 143a or 143b; 97c and two half courses chosen from those numbered 100 and above with the exception that neither Philosophy 143a nor Philosophy 143b may satisfy this latter requirement and that one of those half courses must be a systematic-analytic course, *e.g.*, metaphysics, theory of knowledge, philosophy of science, philosophy of history, etc.

B. Additional Requirement for candidates for degrees with distinction: Philosophy 99.

For courses in Jewish Philosophy see NEJS.

PHILOSOPHY 1. Introduction to Philosophy

An introductory course designed to provide an understanding of the basic problems of philosophy. Persistent questions regarding truth, mind, knowledge, value, perception and existence will be explored. The importance of philosophy in various phases of cultural life will also be examined.

Open to all students.

Staff

PHILOSOPHY 11a. History of Ancient Philosophy

A critical review and discussion of selected texts from the pre-Socratics, Plato, and Aristotle.

Open to all students.

Mr. Santas

PHILOSOPHY 11b. History of Modern Philosophy

A critical review and discussion of selected texts from Descartes, Locke, Berkeley, Hume, Leibniz and Kant.

Prerequisite: Philosophy 11a.

(Students must take both 11a and 11b to satisfy the second year Humanities requirement.)

Mr. Bennett

PHILOSOPHY 12. Nature and Value

During the first semester discussion will center on major problems of values and ethics; *e.g.*, freedom of the will, capital punishment, ethical relativism as these problems have been explored in the Western philosophy tradition. *Mr. Sommers*

During the second semester the discussion will center on man's cosmological views of his place in nature; the change from Greek concepts of nature to mechanistic concepts of nature in the seventeenth century and their overthrow in the nineteenth century.

Open to all students. This course satisfies the Humanities 2 requirement.

See Humanities 12.

Mr. Diamandopoulos

***PHILOSOPHY 13a. Esthetics**

An examination of several leading theories of art, beauty and esthetic judgment and a review of recurring problems such as the form of a work of art, communication in art and meaning in esthetic judgment.

Open to all students.

Although Philosophy 13a cannot be given this year, students may be interested in English 213a—Seminar in Criticism; Five Modern Theories of Poetry.

PHILOSOPHY 15a. Introduction to Logic

An introduction to modern logic. Informal exposition of truth-functional logic, deducibility, validity, implication in truth functional logic. Axiomatization of truth-functional logic. Informal examination of the rudiments of quantification theory and of syllogism.

Open to all students.

Mr. Vickers

PHILOSOPHY 15b. Intermediate Logic

Continuation of 15a. Continued informal and axiomatic development of quantification theory. Notions of consequence, theorem, proof. Semantics of quantification, semantical completeness of the theory. Naive set theory, the nature of formal systems.

Prerequisite: Philosophy 15a or permission of instructor.

Mr. Vickers

PHILOSOPHY 17b. Ethics

An introduction to ethical theory and types of ethical thought through reading and discussion of selected classical and contemporary texts. Topics to be discussed this year: free will and determinism, ethical relativism, and punishment.

Open to all students.

Mr. Santas

***PHILOSOPHY 19a. Epistemology**

A systematic inquiry into the "ways of knowing." Such questions as the nature of truth, the reliability of sense perception, and the problems of *a priori* knowledge will be discussed.

Prerequisite: One year of Philosophy or permission of instructor.

***PHILOSOPHY 21b. Metaphysics**

A systematic inquiry into the nature of being. Such topics as necessity, process, substance, existence, and change will be discussed.

Prerequisite: One year of Philosophy or permission of instructor.

PHILOSOPHY 23b. Philosophy of Education

Significant tendencies in educational thought, based on a study of classical philosophical concepts, but with emphasis on recent and contemporary philosophies of education; a critical examination of the significance of such philosophies.

Open to all students.

Mr. Reitzes

***PHILOSOPHY 33a. Contemporary Philosophy**

A review of recent British and American philosophical thought with special emphasis on Oxford philosophy since the war.

Prerequisite: One year of Philosophy or permission of instructor.

*Not to be given in 1964-65.

***PHILOSOPHY 45b. Philosophy of Science**

An introduction to fundamental philosophical problems of the physical sciences, such as problems of explanation, confirmation, the nature of theory, and the status of general laws.

Prerequisite: One year of Philosophy or permission of instructor.

PHILOSOPHY 52b. Philosophical Analysis and Religion

An attempt to apply methods of contemporary philosophical analysis to religious and theological concepts, among them the existence of God, miracles, religious experience, the problem of evil and immortality.

No prerequisite. Not open to freshmen.

Mr. Weisberg

***PHILOSOPHY 53a. Plato**

An introduction to Plato's thought through an intensive reading of several major dialogues. Among the topics discussed will be the Socratic method, Socratic and Platonic ethics, Plato's conception of the soul, knowledge, and existence.

PHILOSOPHY 97c. Junior Tutorial

Readings and discussions in a selected area with emphasis upon the preparation and presentation of short papers at seminar sessions.

Required of all concentrators. (Optional for those registered in Philosophy 99.)

Staff

PHILOSOPHY 98c. Senior Seminar

Readings, reports, and discussions on assigned topics.

Required of all concentrators.

Staff

PHILOSOPHY 99. Senior Research

Preparation of honors work under the supervision of the department.

Prerequisite: Permission of the Department.

Staff

For Undergraduate and Graduate Students

(For undergraduates—Open only to upperclassmen who have a minimum of one year of Philosophy or by special permission of the instructor.)

Each year a number of advanced courses, usually conducted on the seminar level, will be offered. To avoid a proliferation of listings, only those courses offered in a given academic year are described below. A number of current offerings are crosslisted with the History of Ideas offerings.

PHILOSOPHY 105b. Aristotle

An intensive examination of Aristotle's *Metaphysics*.

Messrs. Santas and Bennett

PHILOSOPHY 116a. Descartes and Cartesianism

Descartes' later thought and its influence in the development of a distinct tradition.

Mr. Diamandopoulos

PHILOSOPHY 122a. Values, Beliefs and Decisions

An examination of the theory of decision-making in terms of utility and subjective probability. Close attention will be paid to problems of consistency and reasonableness of preference and belief.

Mr. Vickers

*Not to be given in 1964-65.

PHILOSOPHY 131a. Theory of Symbols

Types and functions of symbols and symbolic schemes in perception and cognition, and in the arts and sciences. Languages and notations; discursive, digital, and analog systems. Representation, expression, description. Models and metaphors.

Mr. Goodman

PHILOSOPHY 132b. Logical Structure of Experience

General theory of, and specific problems in, the systematic description of experience. Topics will be selected from those dealt with in *The Structure of Appearance*, such as definition, simplicity, abstraction and concretion, varieties of quality and of qualification-relation, order, measure, and time.

Prerequisite: A working knowledge of elementary mathematical logic.

Mr. Goodman

***PHILOSOPHY 143a. Continental Rationalism**

Intensive study of selected texts from Descartes, Spinoza and Leibniz.

***PHILOSOPHY 143b. British Empiricism**

Intensive study of selected texts from Locke, Berkeley and Hume.

PHILOSOPHY 151a. Social and Political Philosophy

The problem of justifying social and political beliefs, including a critical examination of leading attempts to justify such beliefs by appeal to history, natural law, human nature, and theology.

No prerequisite. Not open to freshmen.

Mr. Weisberg

PHILOSOPHY 156a. Philosophy of Mind

A discussion of several major problems in the philosophy of mind.

Mr. Bennett

PHILOSOPHY 158b. Metaphysics and Language

An examination of the nature of categories and their formation. A discussion of the contribution of contemporary theories of language to the traditional problems of category formation.

Mr. Sommers

PHILOSOPHY 167. Kant and the Origins of German Idealism

Intensive study of the basic concepts of Kant's *Critique of Pure Reason* and their subsequent development in German idealism.

Mr. Marcuse

Physics

PROFESSOR KENNETH W. FORD, *Chairman*; Professors STEPHAN BERKO, DAVID L. FALKOFF, EUGENE P. GROSS, EDGAR LIPWORTH, FELIX PIRANI, SILVAN S. SCHWEBER; Associate Professors MAX CHRETIEN, STANLEY DESER, JACK S. GOLDSTEIN (*Director, Astrophysics Institute and Graduate Adviser*), MINORU NISHIDA (*Astrophysics Institute*); Assistant Professors MARCUS T. GRISARU, STEVEN P. HEIMS, PETER HELLER, DANIEL J. KLEITMAN, HUGH N. PENDLETON III (*Undergraduate Adviser*), MARCEL SCHNEEBERGER, HOWARD J. SCHNITZER, SANFORD E. WOLF, MUMTAZ ZAIDI (*Astrophysics Institute*); DR. ASHER ADLER, DR. JOHN BOYLING, DR. ROBERT DOYLE, DR. IRA GILBERT, DR. CHRISTOPH HOHENEMSER, DR. EDWARD LERNER, DR. P. M. MATHEWS, DR. MIKOLAJ ROZWADOWSKI, DR. SHU-JEN TAO.

*Not to be given in 1964-65.

Requirements for Concentration

A. Required of all Candidates: Physics 10a (with honor grade) or 11, 19c, 20a,b, 29a,b, 30a,b, 39a,b, 40a,b; Mathematics 11 or 12, and 20 or 21.

B. Recommended Elective Courses: Chemistry 10a,b or 15a; Mathematics 30, 40, 111a,b; Physics 18a, 21b, 31a,b; Biology 10.

C. Additional requirement for candidates for degrees with distinction: Physics 99 or two graduate courses (with honor grades).

Under normal circumstances a student who wishes to concentrate in the field of Physics will take Physics 11 and Physics 19c in his freshman year, Physics 20a,b, and 29a,b in his sophomore year, Physics 30a,b and 39a,b in his junior year and Physics 40a,b in his senior year. Students who have attained a grade of 3, 4, or 5 in the Advanced Placement Examination can get credit for Physics 10. In order to get credit for Physics 11 and Physics 19c and to be admitted to the more advanced courses, they must successfully pass a special examination given by the Physics Department in the second week of the fall term.

Students who plan to major in Physics are advised to take Physics 11 concurrently with Mathematics 11 or 12.

PHYSICAL SCIENCE 1.

This course focuses on the scientific content of the major theories of physics. From the Newtonian mechanics of the seventeenth century to the quantum mechanics of the twentieth century. Fundamental equations and concepts of physical science are studied in order to reveal the laws and structure of the physical world, from the submicroscopic to the cosmological domain.

The course is open to freshmen and may be taken to satisfy the physical science requirement for non-science concentrators. No background in science is required, but some knowledge of algebra and geometry is assumed.

Two lectures and two recitation hours per week.

Mr. Schweber, Mr. Berko, and Staff

PHYSICS 10. Elementary Physics

A presentation of the phenomena and concepts of physics and their mathematical description. Themes of the course are the broad outlines of physics as a creative human activity and the utility of physics as a tool for solving scientific problems.

The course requires proficiency in elementary mathematics including trigonometry or Mathematics 10 which may be taken concurrently. Physics 10 may be taken in place of Physical Science 1 to satisfy the General Education requirement in the Physical Sciences.

Two lectures and two recitation hours per week.

Mr. Falkoff and Staff

PHYSICS 11. Introductory Physics

A presentation of the basic laws of classical physics and their application to macroscopic and microscopic systems; the study of Newtonian and relativistic mechanics, thermodynamics and statistical mechanics and the laws of electricity and magnetism from a modern point of view. The course is recommended for all eligible students who plan to concentrate in science. Physics concentrators should take it in their freshman year.

The course uses algebra and trigonometry freely and assumes some familiarity with the differentiation and integration of simple functions of one variable.

Three lectures and one recitation hour per week.

Mr. Chretien and Staff

PHYSICS 18a. Calculative Methods in Physics

Practical utilization of differential and integral calculus, vector analysis, special functions, introduction to computer programming.

Open to freshmen.

Mr. Doyle

PHYSICS 19c. Elementary Laboratory

Laboratory course to supplement Physics 10 and 11. Three laboratory hours per week. *3 credits.*

Laboratory fee: \$10.

Messrs. Wolf and Schneeberger

PHYSICS 20a. Wave Theory of Light

Limitations of geometrical optics. Huygen's principle. Interference, diffraction, polarization, crystal optics.

Prerequisite: Physics 11 (or 10 with honor grade).

Mr. Gross

PHYSICS 20b. Introductory Atomic Physics

A study of the experiments leading to the concepts of modern atomic theory. Bohr-Sommerfeld model. Vector model. Special theory of relativity.

Prerequisite: Physics 11 (or 10 with honor grade).

Mr. Heller

PHYSICS 21b. Introduction to Astronomy

Methods of observation. The physical properties of the stars. Stellar structure and evolution. Variable stars. The galaxy and extra-galactic nebulae.

Prerequisite: Physics 10 or 11 or permission of the instructor.

Mr. Goldstein

PHYSICS 29a,b. Intermediate Laboratory

Laboratory course in the experimental and mathematical analysis of electromagnetic phenomena. Alternating current circuits, electronics, semi-conductor physics. Magnetic fields.

Six laboratory hours per week.

Mr. Adler

PHYSICS 30a. Classical Mechanics

One-dimensional systems. Oscillators and normal modes. Particle dynamics. Perturbations. Rigid body motion. Lagrangian equations and conservation laws.

Prerequisite: Physics 20a,b.

Mr. Deser

PHYSICS 30b. Electromagnetism

Laws of electrostatics and magnetostatics. Maxwell's equations. Propagation of electromagnetic waves.

Prerequisite: Physics 20a,b.

Mr. Kleitman

PHYSICS 31a,b. Methods of Mathematical Physics

Linear algebra. Vector calculus. Fourier analysis. Ordinary and partial differential equations. Functions of complex variables.

Prerequisite: Mathematics 11 or 12.

Mr. Heims

PHYSICS 39a,b. Advanced Laboratory

One term of advanced electronics. One term of experiments in atomic and nuclear physics.

Six laboratory hours per week.

Mr. Hohenemser

PHYSICS 40a. Introductory Quantum Mechanics

Basic concepts of non-relativistic quantum theory. Application of Schrödinger's equation to atomic spectra and scattering problems.

By permission of the instructor.

Mr. Pendleton

PHYSICS 40b. Statistical Physics and Thermodynamics

Introduction to kinetic theory. Boltzmann equation. Introduction to classical statistical mechanics. Phenomenological thermodynamics.

By permission of the instructor.

Mr. Grisaru

PHYSICS 98. Reading in Physics

This course is open to exceptional students who wish to study an area of physics not covered in the standard curriculum.

Staff

PHYSICS 99. Senior Research

Research assignments and preparation of a report under the direction of an instructor.

Staff

For Undergraduate and Graduate Students

Courses in the 100 series are open to qualified undergraduate students. The 100 series are primarily first year graduate courses, the 200 series second year, etc.

PHYSICS 100a. Theoretical Mechanics

Mechanics of point systems. Lagrangian and Hamiltonian methods. Small vibrations. Transformation theory. Integral invariants. Kinematics and dynamics of rigid bodies. Perturbation theory. Relativistic mechanics.

Mr. Lerner

PHYSICS 101a,b. Electromagnetic Theory

Electrostatics, magnetostatics, boundary value problems. Maxwell's equations. Quasi-stationary phenomena. Radiation.

Mr. Kleitman

PHYSICS 102a,b. Quantum Mechanics

A critical review of the experiments leading to the quantum hypothesis. Representations, pictures, operator methods. Schrödinger equation and applications. Spin. Addition of angular moments; helium spectrum. Pauli principle. Atomic and molecular structure. Elementary scattering theory; atomic and nuclear scattering.

Mr. Deser

***PHYSICS 103a. Low Energy Nuclear Physics**

Experimental methods. Phenomenology of nuclear properties. Two-nucleon problem. Models for nuclear structure. Radioactivity.

***PHYSICS 103b. High Energy Nuclear Physics**

High energy accelerators and particle detectors. Relativistic kinematics. Classification schemes of elementary particles, conservation laws.

***PHYSICS 104a. Modern Atomic and Molecular Physics**

Microwave spectroscopy, NMR, atomic beams, optical pumping, masers and lasers.

***PHYSICS 104b. Solid State Physics**

Thermal, electric and magnetic properties of solids. Lattice vibrations. Specific heat. Band theory of solids. Fermi surface.

*Not to be given in 1964-65.

PHYSICS 109a,b. Advanced Laboratory

Mr. Hohenemser

PHYSICS 110a. Mathematical Physics

Linear vector spaces: matrices, operators, Hilbert spaces. Orthogonal functions.
Probability theory.

Mr. Matthews

PHYSICS 110b. Mathematical Physics

Complex variables. Differential equations. Boundary value problems. Special functions. Integral equations. Numerical methods.

Mr. Matthews

Primarily for Graduate Students

(See Graduate School Catalog for course descriptions)

*PHYSICS 200a. Special Theory of Relativity

*PHYSICS 200b. General Theory of Relativity

PHYSICS 201a. Thermodynamics and Kinetic Theory

Mr. Gross

PHYSICS 201b. Statistical Mechanics

Mr. Goldstein

PHYSICS 202a and b. Advanced Quantum Mechanics

Mr. Grisaru

PHYSICS 203a. Nuclear Physics

Mr. Schnitzer

PHYSICS 203b. Elementary Particle Physics

Mr. Pendleton

PHYSICS 204a. Solid State Physics

Mr. Berko

*PHYSICS 208a. Astrophysics

*PHYSICS 208b. Gas Dynamics and Magneto Gas Dynamics

*PHYSICS 209. Laboratory Seminar

PHYSICS 302b. Quantum Theory of Fields

Mr. Schweber

*PHYSICS 303b. Quantum Theory of Solids

PHYSICS 311. Many-Body Problems

Mr. Falkoff

*PHYSICS 321. Seminar in Special and General Relativity

*PHYSICS 323. Seminar in Quantum Theory of Fields

*PHYSICS 324a. Seminar in Advanced Statistical Mechanics

*PHYSICS 325b. Seminar in Astrophysics

Research Courses

PHYSICS 401. Experimental Atomic and Molecular Physics

Messrs. Berko and Lipworth

PHYSICS 402. Theoretical Atomic and Molecular Physics

Mr. Pendleton

PHYSICS 403. Experimental Nuclear Physics

Messrs. Berko and Hohenemser

*Not to be given in 1964-65.

- PHYSICS 404. Theoretical Nuclear Physics *Messrs. Ford, Gross and Schnitzer*
- PHYSICS 405. Experimental Elementary Particle Physics
Messrs. Chretien, Schneeberger and Wolf
- PHYSICS 406. Theoretical Elementary Particle Physics
Messrs. Deser, Ford, Grisaru, Pendleton, Schnitzer and Schweber
- PHYSICS 407. Experimental Solid State Physics
Messrs. Berko, Heller and Hohenemser
- PHYSICS 408. Theoretical Solid State Physics *Messrs. Falkoff and Gross*
- PHYSICS 409. Relativity *Messrs. Deser and Pirani*
- PHYSICS 410. Mathematical Physics *Messrs. Deser, Grisaru, Kleitman and Schweber*
- PHYSICS 411. Statistical Physics *Messrs. Falkoff and Gross*
- PHYSICS 412. Astrophysics *Messrs. Goldstein, Nishida and Zaidi*

Politics

Professor JOHN P. ROCHE, *Chairman*; Professors NORTON E. LONG, HERBERT MARCUSE; Associate Professors RUTH S. MORGENTHAU, I. MILTON SACKS, MORRIS WATNICK, PETER WOLL; Assistant Professors WILLIAM M. GOLDSMITH, DONALD HINDLEY, JOEL LARUS, JOSEPH S. MURPHY (*Student Adviser*).

Requirements for Concentration

A. Required of all Candidates: Politics 1a, 1b, 97a, 97b or Honors.

B. Politics concentrators will be required to pass comprehensive examinations at the end of their senior year in three of the following areas: American Institutions, Comparative Government, Political Theory, and International Relations. Students will plan their programs carefully in close cooperation with their advisers to prepare for the comprehensive in Politics. This program is designed to give students maximum choice with respect to curriculum and to encourage independent study.

C. Additional requirements for candidates for degrees with distinction: Politics 99. Candidates who have satisfied their honors requirements (see Politics 99) will be exempt from the senior comprehensive examinations.

POLITICS 1a,b. The Western Political Tradition

An introduction to the political tradition of the West. Historical in orientation, the course focuses on such problems as justice, power, natural law with particular reference to the central issue of reconciling individual liberty with social control.

Open to freshmen.

Section 1: *Messrs. Marcuse, Watnick, Goldsmith*

Section 2: *Messrs. Roche, Larus, Murphy*

POLITICS 11a. Introduction to European Government

A comparative study of government in the advanced western states with emphasis on Great Britain, France, Germany, and the USSR.

Open to freshmen.

Mr. Goldsmith

POLITICS 11b. American Government

An intensive analysis of American political institutions: Congress, Presidency, Supreme Court, bureaucracy, political parties, and pressure groups. Emphasis will be placed on the decision-making process, *e.g.*, legislation, formation of foreign policy, etc.

Open to freshmen.

Mr. Woll

POLITICS 12b. Introduction to Government of Developing Nations

A comparative study of government in the developing countries of Africa, Asia, and Latin America.

Open to freshmen.

Mrs. Morgenthau and Mr. Hindley

POLITICS 21a. President and Congress

An examination of the historical development, constitutional framework, and contemporary functions of the American presidency and Congress. *Mr. Goldsmith*

POLITICS 21b. American Political Parties

An examination of the history, organization, and functions of the American party system. *Mr. Goldsmith*

POLITICS 56b. Civil Liberties in America*POLITICS 72a. Dynamics of International Power Politics**

An introduction to world politics: analysis of the components of power and how power traditionally has been employed and evaluated by member-states in the international community. *Mr. Larus*

POLITICS 72b. Dynamics of International Relations

An examination of peaceful means historically employed by states to help resolve power conflicts. Topics discussed will include diplomacy, international law, international organization, regionalism, alliances, disarmament, and proposals for world government. *Mr. Larus*

Courses for Upperclass Undergraduates: Prerequisites as Noted**POLITICS 97a. Senior Colloquium**

Section 1: American Bureaucracy

Mr. Woll

Section 2: Comparative Political Parties

Mrs. Morgenthau

Section 3: Political Theory

Mr. Murphy

POLITICS 97b. Senior Colloquium

Readings and discussion in selected areas of Politics designed to augment the preparation of seniors for the comprehensive examinations. *Staff*

POLITICS 98a,b,c. Independent Study

Staff

POLITICS 99. Senior Research

Staff

POLITICS/ECONOMICS 101b. Political Economy Seminar

A study of issues on which both economics and politics make related contributions. A major part of the seminar is devoted to the preparation of legislative

*Not to be given in 1964-65.

proposals dealing with current critical issues. Presentations are based on data and information obtained first-hand in Washington.

Registration is limited to a small group to be selected by the instructors from the senior class of Economics and Politics concentrators.

Messrs. Weckstein and Woll

POLITICS 121a. Problems in Community Government

An examination of the evolution and problems of state, local, and regional governmental units.

Mr. Long

POLITICS 121b. Seminar in Community Government

Prerequisite: Politics 121a.

Mr. Long

POLITICS 128a. Public Administration and Public Policy

A study of the dynamics and problems of policy formation and administration in the Federal Government.

Mr. Woll

POLITICS H131a. Israeli Government and Politics (Hiatt Institute)

The emerging political institutions of a rapidly developing society. Lectures and field work conducted in Israel under the Hiatt Institute. *4 credits.*

Mr. Dror

POLITICS 144b. Soviet Russia

A general analysis of the government, foreign relations, and ideology of contemporary Russia. The analysis emphasizes the country's history from the origin of the Bolshevik movement to the present.

Mr. Watnick

***POLITICS 152a. Political Parties**

POLITICS 154b. Seminar in Government Planning

The theory and practice of modern government planning. The problems of planning in a democracy with special reference to the views of Mannheim, Schumpeter, and others. The problems of the organization of the planning process. Democracy and the role of the expert.

Mr. Watnick

POLITICS 156a. History of American Constitutional Law and Theory

For description see History 156a.

Mr. Levy

POLITICS 156b. History of American Constitutional Law and Theory

For description see History 156b.

Mr. Levy

POLITICS 164a. The Government and Politics of Africa

A study of nationalism, political thought and political institutions in Africa. Consideration is given to the evolution of African nationalism and to the political implications of continuity and change in social and economic organization.

Mrs. Morgenthau

POLITICS 164b. Seminar in African Political Development

Prerequisite: Politics 164a.

Mrs. Morgenthau

POLITICS 165a. The Government and Politics of China

An introductory study of the development of political thought and governmental institutions in modern China.

Mr. Watnick

*Not to be given in 1964-65.

*POLITICS 165b. The Government and Politics of Japan

POLITICS 166a. The Politics of Northern Latin America

An introduction to the government and politics of northern Latin America, i.e., Mexico, Central America and the Caribbean countries including Cuba, the Dominican Republic, Colombia, and Venezuela. *Mr. Hindley*

*POLITICS 166b. The Politics of Southern Latin America

POLITICS 168b. International Politics of the Far East

An historically oriented analysis of the forces underlying international relations in the Pacific area starting with the first impact of the Westerners into the area and progressing to the present. Soviet Asian policies; the strategic position of the newly emergent Southeast Asian states; Sino-Japanese conflict; America's stake in the Far East; the Asian Communist bloc; prospects for peace in the Pacific.

Prerequisite: Upperclass standing. *Mr. Hindley*

POLITICS 169a. Government and Politics: Southeast Asia

A survey of the struggle for independence and the post-independence political problems facing the peoples of mainland and island Southeast Asia. The course concentrates on Viet Nam, Laos, Thailand, Malaysia, and Indonesia. *Mr. Hindley*

*POLITICS 169b. Government and Politics: South Asia

POLITICS 170a. American Political Thought

An examination of the origins of American political thought and the beginning of American institutions covering the period prior to the Civil War; the emphasis will be on the relationship between ideas and action, between theory and institutions. *Mr. Roche*

*POLITICS 170b. American Political Thought

*POLITICS 171a. International Politics: The Warfare State

*POLITICS 171b. International Communism

POLITICS 172bR. World Politics: Power, Ideas and Myths

Examination of the course of international politics since Hiroshima, with emphasis on such factors as modern revolution, natural economic growth, leadership, power, terror, and values.

Prerequisite: Upperclass standing and permission of instructor. *Mr. Lerner*

POLITICS 176a. International Organization

A detailed study of the nature, historical development, and basic principles of international law and organization. The structure and actual operations of the League of Nations, and particularly the United Nations, will be emphasized.

Mr. Larus

*POLITICS 176b. International Law

*Not to be given in 1964-65.

*POLITICS 195a. Classical Political Theory

*POLITICS 195b. Medieval Political Theory

*POLITICS 196a. Early Modern Political Theory

POLITICS 196bR. Modern Political Theory

Analysis of the political forms of modern society from the French Revolution to the beginning of the totalitarian era.

Prerequisite: Upperclass standing.

Mr. Marcuse

POLITICS 197aR. Contemporary Political Theory

A systematic analysis of contemporary problems in political theory.

Mr. Murphy

*POLITICS 197b. Selected Topics Seminar

Psychology

Associate Professor RICARDO B. MORANT, *Chairman*; Professors EUGENIA HANFMANN, A. H. MASLOW, HARRY RAND, WALTER TOMAN; Associate Professors RICHARD M. JONES, JAMES B. KLEE, ULRIC NEISSER (*Student Adviser*), MARIANNE L. SIMMEL; Assistant Professors KENNETH D. FEIGENBAUM (*Student Adviser*), NORBETT MINTZ, GUNTHER M. WEIL, JEROME WODINSKY; DR. DONALD B. GIDDON, MR. ANTON G. HARDY.

Requirements for Concentration

A. All concentrators will take Psychology 1a, 2b, and 50b. (Members of the class of 1965 who took Psychology 1a or 3a in their freshman year need take only 50b to fulfill this requirement.)

B. All concentrators will take seven additional half-courses in Psychology. With the consent of the student's adviser, one or two half-courses in other departments may count toward this total.

C. Candidates for degrees with distinction must take Psychology 99 in addition to the foregoing.

D. Students who plan to do graduate work in Psychology are expected to take Psychology 11a and 120a.

Unless otherwise noted, courses numbered 130 or higher are seminars with limited enrollment, and require the consent of the instructor. Upperclass standing will usually be required. In cases where more than the maximum number of students wish to enroll in a course, criteria for selection will include the number of seminars taken previously, to provide equal opportunity for all concentrators.

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Connected with the Department of Psychology is a Nursery School to provide students an opportunity for observing children. The Psychological Counseling Center, an adjunct to the Department of Psychology, offers help to the students in the solution of personal problems.

*Not to be given in 1964-65.

Primarily for Undergraduates

PSYCHOLOGY 1a. The Person in a Social Context

A basic survey of man's development, capacities, and experience in the personal and social realm. Theoretical, clinical, and experimental materials are covered.

Mr. Mintz

PSYCHOLOGY 2b. Elementary Psychological Processes

An introduction to problems in learning, sensation, perception, and comparative psychology.

(Psychology 1a and 2b may be taken in either order.)

Miss Simmel

*PSYCHOLOGY 3a. Freshman Seminar in Psychology

The student will be introduced to psychology by examining a limited problem in some depth, rather than by a survey. Discussion and original reports will be emphasized. This course may be counted for credit toward concentration in Psychology, but does not substitute for Psychology 1a or 2b.

Two sections will be offered on topics to be announced.

Enrollment requires the consent of the instructor.

PSYCHOLOGY 11a. Introduction to Psychological Statistics

The nature of statistical description and inference will be considered, together with selected elementary techniques.

No prerequisites.

Mr. Neisser

PSYCHOLOGY 15a. Child Development

Emphasis is on the first ten years of life as conceptualized and documented in the works of Erik Erikson and Jean Piaget.

Prerequisite: Psychology 1a or permission of the instructor. Enrollment will be limited.

Mr. Feigenbaum

PSYCHOLOGY 18b. Motivation

The theoretical, comparative, clinical, and experimental contributions to a deeper understanding of human wishes, needs, and drives.

Prerequisite: Psychology 1a or permission of the instructor.

Mr. Maslow

PSYCHOLOGY 30b. Educational Psychology

The course will focus on the topographic and dynamic dimensions of the learning process.

Prerequisite: Psychology 15a.

Mr. Weil

PSYCHOLOGY 50b. Introduction to Psychological Theory

The theoretical contributions of psychoanalysis, behaviorism, Gestalt psychology, and other schools will be examined in an historical framework.

Prerequisite: Two half-courses in psychology. This course will ordinarily be taken in the sophomore or junior year.

Mr. Wodinsky

PSYCHOLOGY 96a. Field Work in Child Psychology

In addition to class meetings, each student will spend one morning a week (3 hours) observing and participating in the nursery school.

Prerequisite: Psychology 1a, 15a, and permission of instructor. Enrollment limited to 10.

Mr. Mintz

*Not to be given in 1964-65.

PSYCHOLOGY 96aR. Field Work in Child Psychology

Repeat of Psychology 96a.

Mr. Mintz

PSYCHOLOGY 97c. Tutorial in Psychology*PSYCHOLOGY 98a,b, and c. Readings in Psychological Literature**

Readings and reports under the direction of a faculty supervisor. Open to a small number of juniors and seniors with permission of Mr. Feigenbaum. *Staff*

PSYCHOLOGY 99. Senior Research

Senior candidates for a degree with distinction in psychology may enroll in Psychology 99 with permission of Mr. Feigenbaum. *Staff*

For Undergraduate and Graduate Students**PSYCHOLOGY 115a. Experiential Approaches to Personality**

Self-analyses, dream and symbol psychology, peak and mystic experiences, archaic, mythic, and pre-rational cognition.

Prerequisite: Psychology 1a and permission of the instructor.

Section 1: *Mr. Maslow*

Section 2: *Mr. Weil*

PSYCHOLOGY 118a. Physiological Psychology

Those aspects of physiology most relevant to psychological investigation: the anatomy and physiology of receptor and effector organs, the neuron and synapse, sensory and motor neural pathways, the integrative activity of the central nervous system, the autonomic system and the action of hormonal factors.

Prerequisite: Psychology 2b or permission of instructor.

Mr. Giddon

PSYCHOLOGY 119b. Comparative Psychology

Comparison of the behavior of various species, including man, in an evolutionary perspective.

Prerequisite: Psychology 2b or permission of the instructor.

Mr. Wodinsky

PSYCHOLOGY 120a. Experimental Psychology

Individual or group research carried out under supervision. Techniques of experimentation, experimental design. *4 credits.*

Prerequisite: Psychology 2b or permission of the instructor.

Mr. Morant

PSYCHOLOGY 121. History of the Concept of Human Nature

Ideas on the nature of man developed in western society since the end of the seventeenth century.

Same as History 131.

Mr. Manuel

PSYCHOLOGY 130a. Psychology of Problem Solving and Learning

A study of the creative process, its background and consequences and its relation to perception and learning theory.

Enrollment limited to 15.

Mr. Klee

PSYCHOLOGY 131b. Psychology of Symbolic Processes

Culture as studied primarily from the frame of reference of psychology. Dreams, myths, and art as created, expressed, and as used in language, the hu-

*Not to be given in 1964-65.

manities, and sciences will be studied as psychological data. The place of psychology in relation to the humanities and the other sciences will be evaluated.

Enrollment will *not* be limited in 1964-65.

Mr. Klee

PSYCHOLOGY 132b. Psychology of Emotions

A consideration of the value dimension of the individual's dynamic relation to the world about him in both its positive and disruptive aspects.

Enrollment limited to 15.

Mr. Klee

PSYCHOLOGY 133a. Choice, Will and the Ego

A revaluation of the "active person." Choice, freedom and responsibility will be considered as psychological problems. A study will be made of the relevance to choice and action of hedonics, knowledge, reason, and religion, and of man's relation to his perception of good and evil, sickness and health. An assessment of the individual's role in disease and conflict.

Limited to upperclassmen; permission of the instructor required.

Enrollment will *not* be limited in 1964-65.

Mr. Klee

PSYCHOLOGY 134a. Abnormal Psychology

The major pathological syndromes will be considered from a psychoanalytic point of view.

Enrollment limited to 15.

Mr. Weil

*PSYCHOLOGY 135a. Psychoanalytic Theory in Application

*PSYCHOLOGY 137b. Personality

*PSYCHOLOGY 138a. Socio-Cultural Factors in Mental Illness

PSYCHOLOGY 139b. The Self and Identity

The seminar will focus on twentieth century American social character, and specifically, on the establishment of personal identity. Economic, social, and cultural variables and their psychological concomitants will be examined.

Enrollment limited to 15.

Mr. Feigenbaum

PSYCHOLOGY 140a. Learning and Behavior

Current theories of learning will be explored in the light of experimental evidence derived from human and animal studies.

Enrollment limited to 15.

Mr. Wodinsky

PSYCHOLOGY 141a. Biological Bases of Motivation

Topics to be treated include hunger, thirst, migration, sexual behavior. Evidence from biology, neurophysiology, and endocrinology will be evaluated.

Enrollment limited to 15.

Mr. Wodinsky

PSYCHOLOGY 142b. Psychosomatics

The interrelationships of psychological, social, and cultural factors in physical disease. Topics include psychophysiological mechanisms in disease, physiological correlates of mental disease, and "somato-psychic problems."

Mr. Giddon

*Not to be given in 1964-65.

PSYCHOLOGY 143a. Cognitive Processes

Prerequisite: Psychology 50b or permission of the instructor.

Enrollment limited to 15.

Miss Simmel

PSYCHOLOGY 144b. The Psychology of Language

Linguistic development; names, concepts, and symbols; expressive language; metaphor; grammar and syntax; problems of translation; pathology of language.

Enrollment limited to 15.

Miss Simmel

PSYCHOLOGY 146a. Psychopathology and Cognition

Alterations of perceptual and conceptual processes in schizophrenia, in brain injury, under the influence of drugs, and under conditions of so-called sensory isolation.

Enrollment limited to 15.

Miss Simmel

PSYCHOLOGY 147b. Systematic Psychology

Mr. Weil

PSYCHOLOGY 148aR. Advanced Child Psychology

The dynamic aspects of child behavior and development will be studied, discussed, and applied in demonstrations.

Enrollment limited to 15.

Mr. Toman

PSYCHOLOGY 149b. Phenomenological Psychology

The implications of a phenomenological viewpoint for problems in personality, perception, and cognition. Cassirer's philosophy of symbolic forms will be studied to see how a radical phenomenology can be grounded in epistemological and ontological principles.

Mr. Hardy

PSYCHOLOGY 150b. The Psychology of Religious Experience

A study of selected examples of religious experience, both contemporary and historical.

Messrs. Manuel and Maslow

PSYCHOLOGY 151a. Political Behavior

This seminar will focus in several psychosocial variables related to political behavior. An empirical project related to the 1964 Presidential election will be required of all students.

Enrollment limited to 15.

Mr. Feigenbaum

PSYCHOLOGY 155b. Advanced Educational Psychology

Dynamic Psychology as applied to educational practice.

For seniors enrolled in the Education Program or others with the consent of the instructor. Enrollment limited to 15.

Mr. Jones

***PSYCHOLOGY 161. Field Work in Abnormal Psychology**

Each student spends one hour a week with a chronically ill adult patient, chosen by the student and seen by the student throughout the academic year. All students meet with the staff twice a week for an hour's group discussion, and each student meets once every other week for a half hour of individual consultation with the instructor.

Prerequisite: Permission of the instructor. Students from other fields may be accepted. Enrollment limited to 10.

*Not to be given in 1964-65.

Primarily for Graduate Students

(See Graduate School Catalog for course descriptions)

PSYCHOLOGY 200a,b, and c. Individual Research Projects

Messrs. Morant, Neisser and Staff

PSYCHOLOGY 201c. Seminar in the Teaching of Psychology

Mr. Jones

*PSYCHOLOGY 206a. Seminar in Learning

PSYCHOLOGY 207b. Seminar in Perception

Mr. Morant

*PSYCHOLOGY 208b. Seminar in Cognition

*PSYCHOLOGY 209a. Seminar in Physiological and Comparative Psychology

PSYCHOLOGY 210a. Advanced Psychological Statistics

Mr. Neisser

*PSYCHOLOGY 213. Introduction to Projective Techniques

PSYCHOLOGY 214a. History of Psychological Thought

Mr. Manuel

PSYCHOLOGY 215b. Psychoanalytic Theory

Mr. Toman

PSYCHOLOGY 216a. Selected Clinical Topics

Miss Hanfmann

*PSYCHOLOGY 217b. Seminar in Clinical Research

*PSYCHOLOGY 218a. Seminar in Social Psychology

*PSYCHOLOGY 219a. Approaches to Psychotherapy

PSYCHOLOGY 220. Supervised Individual Field Work

Messrs. Mintz, Jones and Toman

PSYCHOLOGY 221. Clinical Psychopathology

Mr. Rand

PSYCHOLOGY 229. Research Seminar: The Social and Personal

Determinants of Illness

See Sociology 229.

Messrs. Feigenbaum, Mintz, Spivak, Zola

PSYCHOLOGY 290-297. Readings in Psychological Literature

Mr. Morant and Staff

PSYCHOLOGY 300. Department Colloquium and Research Seminar

Mr. Maslow and Staff

PSYCHOLOGY 400. Doctoral Dissertation

Mr. Morant and Staff

*Not to be given in 1964-65.



Russian Language and Literature

Requirements for Concentration

A. Required of all Candidates: Russian 3a, 117b, 161b.

B. For those majoring in literature: five additional half courses in Russian literature above Russian 10.

C. For those majoring in linguistics:

1. Anthropology 102 (Introduction to Linguistics) or equivalent.
2. Two half courses in Russian literature above Russian 10.
3. Russian 97c (Tutorial in Slavic Linguistics).
4. Russian 112b.

D. Two full courses from related areas, subject to approval of Coordinator or the Chairman.

E. Additional Requirement for candidates for degrees with distinction: Russian 99.

Russian 1 and 2 are full year courses and may not be dropped with credit at midyear.

RUSSIAN 1. Introductory Russian

Staff

RUSSIAN 2. Intermediate Russian

Prerequisite: Russian 1, appropriate placement score, or permission of the instructor.

Staff

RUSSIAN 3a. Intermediate Conversation and Composition

Prerequisite: Permission of the instructor.

Mr. Szulkin

RUSSIAN 5a. Accelerated Second Year Russian

An *intensive* one-semester course for students whose placement score or performance in Russian 1 indicates an advanced preparation.

Prerequisite: Permission of the Coordinator or the Chairman.

Staff

RUSSIAN 10. Readings in Russian Literature

Prerequisite: Russian 2 or 5a, appropriate placement score, or permission of the instructor.

Staff

RUSSIAN 97c. Tutorial

Prerequisite: Permission of the instructor.

Mr. Gribble

RUSSIAN 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the Coordinator or the Chairman.

Staff

RUSSIAN 99. Senior Research

Students who are candidates for a degree with honors in Russian must register for this course and prepare, under faculty direction, an honors thesis of 10,000 words on an appropriate topic.

Staff

RUSSIAN 112a. Theory of Language

The structure of language. Language families. Writing systems. Linguistic prehistory. Historical and comparative linguistics.

Prerequisite: Permission of the instructor.

Mr. Gribble

***RUSSIAN 112b. Theory of Language**

Major developments in linguistic theory and the application of linguistic concepts.

Prerequisite: Permission of the instructor.

***RUSSIAN 117b. Pre-Nineteenth Century Russian Literature**

Prerequisite: Russian 10 or permission of the instructor.

***RUSSIAN 120b. The Long Poems by Pushkin**

Prerequisite: Russian 10 or permission of the instructor.

***RUSSIAN 138a. Nineteenth Century Prose, excluding Tolstoi and Dostoevski**

Prerequisite: Russian 10 or permission of the instructor.

RUSSIAN 139a. Nineteenth Century Poetry, excluding Pushkin

Prerequisite: Russian 10 or permission of the instructor. *Mr. Astour*

RUSSIAN 141b. The Russian Short Story

Survey of the Russian short story from the nineteenth century to the present.

Prerequisite: Russian 10 or permission of the instructor. *Mr. Szulkin*

RUSSIAN 145b. Dostoevski

Prerequisite: Russian 10 or permission of the instructor. *Mr. Weil*

***RUSSIAN 146bR. Tolstoi and Stendhal**

See Comparative Literature 146bR.

Note: This course may not be used to satisfy the foreign language and literature requirement.

***RUSSIAN 147a. Slavic Drama**

History and development of Slavic drama in the nineteenth and twentieth centuries. Special emphasis on the development of Russian and Polish drama. Polish and other non-Russian plays will be read in translation.

Prerequisite: Russian 10 or permission of instructor.

RUSSIAN 149a. Soviet Literature

Prerequisite: Russian 10 or permission of the instructor. *Mr. Weil*

***RUSSIAN 161b. The Structure and History of Modern Literary Russian**

A detailed and systematic study of the phonology, morphology, and syntax of modern Russian, with an introduction to the history of the literary language.

Prerequisite: Russian 10 or permission of the instructor.

***RUSSIAN 162. Russian Fiction of the Nineteenth Century**

See Humanities 162.

Sociology

Professor MORRIS S. SCHWARTZ, *Chairman*; Professors LEWIS A. COSER, EVERETT C. HUGHES, JOHN R. SEELEY, KURT H. WOLFF; Associate Professors PHILIP E. SLATER, MAURICE R. STEIN, E. V. WALTER (*Graduate Student Adviser*), ROBERT S. WEISS; Assistant Professors GORDON A. FELLMAN, BERNARD Z. SOBEL (*Undergraduate Student Adviser*), IRVING K. ZOLA; MR. JOSEPH ZELAN.

*Not to be given in 1964-65.



Requirements for Concentration

A. Required of all Candidates: Sociology 1a (or 1aR), 2a (or 2aR), 13a, 97c.

B. Elective Courses: Concentrators must elect the equivalent of five semester courses from those listed in the departmental offerings (excluding the required courses), and the equivalent of any full course in the School of Social Science (excluding introductory courses).

C. Additional Requirement for candidates for degrees with distinction: Sociology 99.

SOCIOLOGY 1a. Introduction to Sociology

Main areas of present-day sociological investigation. Major groups and institutions of modern society. Guiding concepts such as social norms, status and role, interaction, social structure and function.

Open to freshmen.

Messrs. Sobel and Fellman

SOCIOLOGY 1aR. Introduction to Sociology

Same as Sociology 1a but given in the Spring term.

Open to freshmen.

Messrs. Slater and Walter

SOCIOLOGY 2a. History of Sociological Theory

Sociological theories in historical perspective. Theoretical insight and empirical investigation. Readings of sociological classics and recent monographs.

Mr. Wolff

SOCIOLOGY 2aR. History of Sociological Theory

Same as Sociology 2a but given in the Spring term.

Mr. Coser

SOCIOLOGY 13a. Methods of Social Research

A laboratory course in research methods in sociology and social psychology. Students will complete a research project, working either individually or as members of small teams.

Messrs. Weiss and Zelan

SOCIOLOGY 13aR. Methods of Social Research

Mr. Zelan

SOCIOLOGY 14a. Social Psychology

The consequences of social life for the individual. Structure and functions of human groups, socialization and motivation, perception, the formation of attitudes.

Open to freshmen.

Mr. Fellman

SOCIOLOGY 14aR. Social Psychology

Same as Sociology 4a but given in the Spring term.

Mr. Fellman

SOCIOLOGY 25. Group Process

Interpretation of interpersonal behavior and group development, based in part on observation of the discussion group itself. Readings will include material from psychology and social anthropology as well as sociology.

This is a full course and is not divisible.

Admission by permission of the instructor.

Mr. Slater

SOCIOLOGY 97c. Tutorial in Sociology

Required readings, research, reports and discussions on assigned topics.

For seniors only.

Mr. Wolff

SOCIOLOGY 98a,b. Junior Readings in Sociology

Readings and reports under the direction of a faculty supervisor. In exceptional cases, this course may be used as preparation for the honors program in the senior year.

Staff

SOCIOLOGY 99. Senior Research

Seniors who are candidates for degrees with honors in sociology are required to register for this course and, under the direction of a member of the faculty, prepare an honors thesis on a suitable topic.

Staff

For Undergraduate and Graduate Students***SOCIOLOGY 100b. Sociology of the Community**

The contrast between the pre-industrial and the modern industrial community. The institutional structure of community life, its internal structure and external sources of control and domination. Emphasis on the psychological and social foundations of modern community life. Illustrations from European and American communities.

SOCIOLOGY 101a. Sociology of Conflict and War

The functions of social conflict in different types of societies and different institutional settings, in large social structures and smaller groups. Racial and ethnic conflicts, marital conflicts, political conflicts, war.

Mr. Coser

*Not to be given in 1964-65.

***SOCIOLOGY 102a. Social Psychiatry**

The interplay between the social formation of the self and institutional participation. The processes by which the individual incorporates through language and action the personal styles available to his experience and assessment; types of personal identity and mechanisms of defense in stable and changing societies, with emphasis on Western personality.

SOCIOLOGY 103a. Sociology of Religion

Sociological analysis of contemporary and historical religious institutions and experiences. Religious leadership and followership; conversion; sect, denomination, and church; religion, society, and politics; leading contemporary schools of theology.

See Contemporary Jewish Studies.

Mr. Sobel

***SOCIOLOGY 104b. Sociology of Education**

Functional bases of educational systems; their formal and informal organization; their relations to family, economy, polity, and social classes.

SOCIOLOGY 105b. Sociology of Modern Anti-Semitism

Sociological analysis of contemporary forms of anti-Semitism. Various theories (both past and present) attempting to explain the phenomenon will be critically examined.

Admission by consent of the instructor.

See Contemporary Jewish Studies.

Mr. Sobel

SOCIOLOGY 106a. Sociology of Literature

The relations between society and literary forms in selected historical periods. Emphasis on the relations between problems and methods in inquiry as presented by sociological and humanistic students of man.

Admission by permission of the instructor only.

Mr. Stein

***SOCIOLOGY 107b. Advanced Social Psychology**

Human behavior from a combined psychodynamic and sociological point of view; with special emphasis on socialization and the relations between the individual and the collectivity.

SOCIOLOGY 109a. Social Causation

The nature and significance of causal inquiry, especially into social phenomena. Explanation, understanding, interpretation. Case study and generalization. Social causation and social change.

Mr. Wolff

SOCIOLOGY 110b. Sociology of Knowledge

History and historical interpretation of the sociology of knowledge, with particular emphasis on German and recent American literature.

Mr. Wolff

***SOCIOLOGY 111a. Political Sociology Seminar**

The political community in seventeenth century England; symbolic expression; moral and intellectual foundations; social and economic forces; the interpretation of transition.

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SOCIOLOGY 112b. Social Stratification

Bases of stratification and types of class systems. Variables which place an individual within a class, mobility between classes, influences of class subcultures on the personality; the dynamics of change in social class systems. *Mr. Fellman*

***SOCIOLOGY 114a. Modern Bureaucracy**

Structure and function of large-scale organizations. Authority and decision making. Status systems and gradations of prestige. Conflicts of power within and between bureaucracies. "Red tape" and the social pathology of bureaucracies. The bureaucrat as a social type.

SOCIOLOGY 115b. Sociology of the American Churches

The major sociological and theological characteristics of the American churches; church membership and church organization; the relationship of the churches to the power structure and to each other; Catholics and Jews; the "majority" churches in a pluralistic society.

See Contemporary Jewish Studies.

Mr. Sobel

***SOCIOLOGY 116a. Racial and Cultural Contacts**

Comparative study of multi-racial (cultural, ethnic, religious) societies in various parts of the world, but with emphasis on the U.S.A. Their structures; problems and conflicts of personal identity; relations among people of various categories; ideologies; conflict, movements, and change.

***SOCIOLOGY 117b. Sociology of Work and Occupations**

A comparison of work and occupational systems in various cultures. Social organization of occupations and the place of work in the life of the individual.

SOCIOLOGY 118a. Social Institutions

Development and changes of various institutions characteristic of North American society with some attention to other societies. Their origins, the contingencies to which they are subject, and their interrelations. Field work.

Mr. Hughes

***SOCIOLOGY 122a. Sociology of Power**

Sociological analysis of power relations and systems, exploring the literature on the theory and practice of power, with special attention to statements by the major social theorists.

SOCIOLOGY 122b. Comparative Political Sociology

Analysis of several typical political systems, examining their relations to social structures, using cross-cultural and historical materials, investigating the foundations of political community and the organization of controls.

Mr. Walter

***SOCIOLOGY 123a. Ideology and Social Movements**

Effect of political events and social processes on political thought and action in the twentieth century. Social functions of political ideologies. Structure and orientation of organizations intending to cause social change.

SOCIOLOGY 125b. Quantitative Methods in Research

The uses of statistics in the organization, interpretation, and presentation of

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research data, with emphasis on the ideas underlying the development and use of statistical techniques.

Prerequisite: Sociology 3a or the equivalent or the permission of the instructor.
Mr. Weiss

SOCIOLOGY 126a. Sociology of Deviance

Deviance as social process, its nature and conception, its functional as well as dysfunctional aspects. Survey of theory and research. Concentration on selected instances of individual and social pathology.
Mr. Zola

SOCIOLOGY 127b. Health and Society

Current research and problems will be discussed, including topics such as: conceptions of health and illness, role of patients, treatment institutions and practices, and the place of social science in medicine.
Mr. Zola

SOCIOLOGY 130a (formerly 15a). The Family

The family in relation to its societal context and the personality development of the child. Cross-cultural materials will be emphasized.
Mr. Slater

SOCIOLOGY H131a. Israel Social Institutions (Hiatt Program in Israel)

Demography, immigration, the native born and the Arabs, pre-state institutional structure; absorption of immigrants, the second generation; changes in institutional structure and social policy; special problems including ethnic settlement, status and stratification, cultural policy. 4 credits.
Mr. Gurevitch

Graduate Students Only

(See Graduate School Catalog for course descriptions)

SOCIOLOGY 200. Classical Sociological Theory

Fall: Mr. Stein
Spring: Mr. Coser

SOCIOLOGY 203c. Field Methods in Sociological Research

Messrs. Hughes, Schwartz and Zola

SOCIOLOGY 210b. Survey of Research Methods

Mr. Weiss

SOCIOLOGY 215a. Sociology of the Intellectuals

Mr. Coser

SOCIOLOGY 223b. Sociology of Poverty

Mr. Stein

SOCIOLOGY 225a. Applied Sociology Seminar

Mr. Schwartz

*SOCIOLOGY 226b. Seminar in Social Psychology

SOCIOLOGY 227a. Seminar in Occupations

Messrs. Hughes and Weiss

SOCIOLOGY 229. Research Seminar: The Social and Personal

Determinants of Illness

See Psychology 229.

Messrs. Feigenbaum, Mintz, Spivak, Zola

SOCIOLOGY 230-235. Readings in Sociological Literature

Mr. Schwartz and Staff

SOCIOLOGY 300. Colloquium

Mr. Stein

SOCIOLOGY 301c. Advanced Field Research

Messrs. Schwartz, Stein and Zola

SOCIOLOGY 400. Dissertation Research

Mr. Schwartz and Staff

*Not to be given in 1964-65.

Spanish Language and Literature

Requirements for Concentration

A. Required of all Concentrators: Spanish 3a or 3b, 97c, 106b, 120, 140aR, 150a, and one full course chosen from Spanish course offerings above Spanish 10.

B. One full course chosen from the following: Comparative Literature 116b, 145a, 145b, 181bR; Spanish 112b.

C. Two full courses from the School of Humanities except logic or composition.

D. Comprehensive Examination to be taken at the end of the senior year. (Students wishing to prepare for this examination should consult the adviser to concentrators.)

E. Additional Requirement for candidates for degrees with distinction: Spanish 99.

Spanish 1 and 2 are full year courses and may not be dropped with credit at midyear.

Spanish 10 may be divided with the permission of the Coordinator or the Chairman.

SPANISH 1. Introductory Spanish

Staff

SPANISH 2. Intermediate Spanish

Prerequisite: Spanish 1, appropriate placement score, or permission of the instructor.

Staff

*SPANISH 3a. Intermediate Conversation and Composition

Prerequisite: Spanish 2 or permission of the instructor.

SPANISH 3b. Advanced Conversation and Composition

Prerequisite: Spanish 3a or permission of the instructor.

Mr. Yglesias

SPANISH 5a. Accelerated Second Year Spanish

An *intensive* one-semester course for students whose placement score or performance in Spanish 1 indicates an advanced preparation.

Prerequisite: Permission of the Coordinator or the Chairman.

Staff

SPANISH 10. Readings in Spanish Literature

Prerequisite: Spanish 2 or 5a, appropriate placement score, or permission of the instructor.

Staff

SPANISH 97c. Tutorial

Prerequisite: Permission of instructor.

Mr. Duffy

SPANISH 98a and b. Independent Study

Reading and reports under faculty supervision. May be taken only with the permission of the Coordinator or the Chairman.

Staff

SPANISH 99. Senior Research

Students who are candidates for a degree with honors in Spanish must register

*Not to be given in 1964-65.

for this course and prepare, under faculty direction, an honors thesis of 10,000 words on an appropriate topic. *Staff*

SPANISH 106b. Studies in Advanced Spanish Conversation and Composition

Prerequisite: Permission of the instructor.

Mrs. Lida

SPANISH 112a. Theory of Language

The structure of language. Language families. Writing systems. Linguistic prehistory. Historical and comparative linguistics.

Prerequisite: Permission of the instructor.

Mr. Gribble

***SPANISH 112b. Theory of Language**

Major developments in linguistic theory and the application of linguistic concepts.

Prerequisite: Permission of the instructor.

***SPANISH 120. Cervantes**

Prerequisite: Spanish 10 or permission of the instructor.

SPANISH 125a. The Seventeenth Century

Prerequisite: Spanish 10 or permission of the instructor.

Miss Collard

SPANISH 127a. Introduction to the Theory of Spanish Art

See Fine Arts 127a.

Mr. Bronstein

***SPANISH 130a. Nineteenth Century Spanish Literature**

Prerequisite: Spanish 10 or permission of the instructor.

***SPANISH 140aR. Spanish Lyric Poetry**

Prerequisite: Spanish 10 or permission of the instructor.

***SPANISH 150a. Spanish Drama of the Siglo de Oro**

Prerequisite: Spanish 10 or permission of the instructor.

SPANISH 160aR. Latin American Literature: Major Trends

Prerequisite: Spanish 10 or permission of the instructor.

Miss Collard

SPANISH 160bR. Latin American Literature: The Revolution

Prerequisite: Spanish 10 or permission of the instructor.

Mr. Yglesias

***SPANISH 162bR. Studies in Argentine and Brazilian Literature**

Prerequisite: Spanish 10 or permission of the instructor.

SPANISH 170b. The Generation of 1898

Prerequisite: Spanish 10 or permission of the instructor.

Mr. Duffy

***SPANISH 180b. Twentieth Century Spanish Literature**

Prerequisite: Spanish 10 or permission of the instructor.

*Not to be given in 1964-65.

Theatre Arts

Professor EDWIN BURR PETTET, *Chairman and Student Adviser*; Professor LOUIS KRONENBERGER; Associate Professor JOHN F. MATTHEWS; Assistant Professors JAMES H. CLAY, JOHN J. SOMMERS; Mr. CARLO MAZZONE-CLEMENTI, Mr. HOWARD STEIN.

Requirements for Concentration

The Theatre Arts program at Brandeis is designed to serve the needs of the prospective playwright, critic and theatre historian as well as the potential performer, designer and director. Concentrators in Theatre Arts, therefore, fall into two classifications: those whose primary interest in the stage lies in the area of production and performance, and those whose impulse is mainly creative and critical. Hence, two ways of majoring in Theatre Arts are offered:

1. *Production and Performance and,*
2. *Dramatic Writing and Criticism.*

A. All concentrators must complete seven full courses in the department.

B. In addition to Theatre Arts 1, 2 and 108a, which are required of all majors, those whose emphasis is upon Production and Performance must elect two full courses numbered over 110.

C. With the Chairman's permission, certain courses offered outside the Department of Theatre Arts may be elected to fulfill the requirements for concentrators; English Composition 101a and b; French 117b, 140aR, 140b; German 160b; Spanish 150a.

All concentrators are required to participate *twice* in major productions, once in the field of costumes, lights or settings and once in production management.

All concentrators are required to pass a departmental comprehensive examination in the second semester of their senior year.

The award of departmental honors will be conferred by the staff for outstanding scholarship or creativity.

THEATRE ARTS 1. Introduction to Drama and the Theatre

A survey of dramatic literature and theory from Sophocles to Tennessee Williams.

Open to freshmen.

Mr. Pettet



THEATRE ARTS 2. Elementary Stagecraft and Production Studies

An introduction to the theatre in its technical aspects. The course involves both lecture-discussions and laboratory exercises, and covers such topics as stage and costume design; lighting; construction techniques; makeup; production methods; the organizational structure of a theatre; and history of scenic concepts.

Four classroom hours per week. *8 credits.*

Open to freshmen.

Mr. Clay

THEATRE ARTS 3. Acting

Four classroom hours per week.

Open to freshmen with permission of the instructor.

Messrs. Sommers and Mazzone-Clementi

THEATRE ARTS 4b. The Actor's Art

An introduction for non-majors into the nature of the actor's and director's art. The course does not intend to train talent but rather to provide the student with the experience of the stage through the use of workshop sessions, films, recordings and the study of acting and directing methods both past and present.

Mr. Sommers

THEATRE ARTS 97a. Selected Topics

Stage movement and body expression for the actor.

Limited enrollment.

Mr. Mazzone-Clementi

THEATRE ARTS 97b. Selected Topics

Problems of scenic design.

Limited enrollment.

Mr. Clay

THEATRE ARTS 99. Independent Study

Students may elect either a research or production project. Approval by the staff must be obtained at the end of the junior year. A University average of B is prerequisite.

Mr. Mazzone-Clementi

THEATRE ARTS 102b. Directing

Four classroom hours per week.

Prerequisite: Theatre Arts 3.

Juniors and seniors only.

Mr. Sommers

THEATRE ARTS 104. Playwriting

An exploration of the complex problems of writing an effective play. The course covers such topics as play construction, characterization, action, dialogue, the use of verse and music, the sources of dramatic material, and techniques of script-development. Includes experiments in scene-writing, reading and analysis of student play projects, and critical examination of current Broadway plays.

Juniors and seniors only.

Mr. Matthews

THEATRE ARTS 105b. Advanced Playwriting

Prerequisite: Theatre Arts 104 and the permission of the instructor. *Mr. Stein*

THEATRE ARTS 108a. Theatre History

A study of the history of theatre arts (architecture, design, acting, directing) from the Greeks to the present day with emphasis on the relation of physical properties to dramatic conventions.

Mr. Clay

***THEATRE ARTS 115a. Restoration Comedy**

A study of classic English comedy, chiefly of the Restoration—Etherege, Wycherley, Dryden, Congreve, Vanbrugh. Opening with the great Restoration ancestor, Ben Jonson, the course continues into the eighteenth century of Goldsmith and Sheridan.

Two classroom hours per week. *Juniors and seniors only.*

THEATRE ARTS 115b. Modern Comedy

A study of comedy since its rebirth in the late nineteenth century. Particular emphasis on Shaw and Chekhov, and treatment of such playwrights as Wilde, Synge, O'Casey, Pirandello, George Kelly, Giraudoux, Anouilh, and T. S. Eliot.

Prerequisite for concentrators: Theatre Arts 115a.

Two classroom hours per week. *Juniors and seniors only.* Mr. Kronenberger

THEATRE ARTS 118b. Comedy

An investigation into the phenomenon of laughter in the context of the theatre's comic forms: farce, comedy, parody, burlesque, and satire.

Juniors and seniors only.

Mr. Pettet

THEATRE ARTS 121a. Shaw and His Contemporaries

A study of English and Continental playwrights of the late nineteenth and early twentieth centuries with a particular emphasis upon the philosophy and writing of Bernard Shaw.

Juniors and seniors only.

Mr. Pettet

THEATRE ARTS 122a. The Modern Drama

Plays will be examined as works of literary and dramatic art. In addition, attention will be given to the theatrical organization, the social circumstances, and the intellectual currents that influenced them. The authors to be read include Ibsen, Strindberg, Rostand, Becque, Hauptmann, Wedekind, Gorky, Yeats, O'Neill, Eliot, Cocteau, and Lorca.

Mr. Sommers

THEATRE ARTS 123b. Contemporary Drama

Continental, English, and American plays of the present, including the works of Brecht, Frisch, Beckett, Genet, Ionesco, Pinter, Gelber, and Duerrenmatt.

Mr. Stein

THEATRE ARTS 124a and 124aR. Shakespeare

See English 3a and 3aR.

Mr. Cunningham and Miss Ward

THEATRE ARTS 125a. History of the American Drama

A study of the American theatre from its beginnings to the First World War.

Mr. Matthews

THEATRE ARTS 125b. History of the American Drama

A study of the American theatre from the First World War to the present.

Prerequisite: Theatre Arts 125a.

Mr. Matthews

THEATRE ARTS 127b. Greek and Roman Drama

A study of the dramatic masterpieces of Greece and Rome seen in relationship to their socio-political background, and emphasizing the developments in dramatic structure.

Mr. Clay

*Not to be given in 1964-65.

THEATRE ARTS 132b. Dramatic Theory and Criticism

A study of dramatic criticism from Aristotle to the present. An investigation into the development of dramatic theory seen through the records of critical observers.

Juniors and seniors only.

Mr. Stein

***THEATRE ARTS 133b. The Popular Arts**

A survey of radio, television, films, and musicals.

Juniors and seniors only.

***THEATRE ARTS 150a. Esthetics of the Theatre**

A study of the anatomy of the theatre's arts. An analysis of the philosophy underlying dramatic conventions and composition. An intense exploration through plays and critics of the art of the playwright and dramatic communication.

Juniors and seniors only. Limited enrollment.

THEATRE ARTS 151. Tragedy

An inquiry into the nature of tragic drama based on the study of plays and theories appropriate to the subject. Various ancient and modern attitudes toward the problems of tragedy will be explored through reading and discussion of works by Sophocles, Shakespeare, O'Neill, Anderson, etc., as viewed from the perspective of Aristotle, Hegel, Nietzsche, Schopenhauer and others.

Juniors and seniors only.

Mr. Matthews

Yiddish Language and Literature**YIDDISH 1. Introductory Yiddish**

Mr. Astour

***YIDDISH 10. Readings in Yiddish Masterpieces**

Prerequisite: Permission of the instructor.

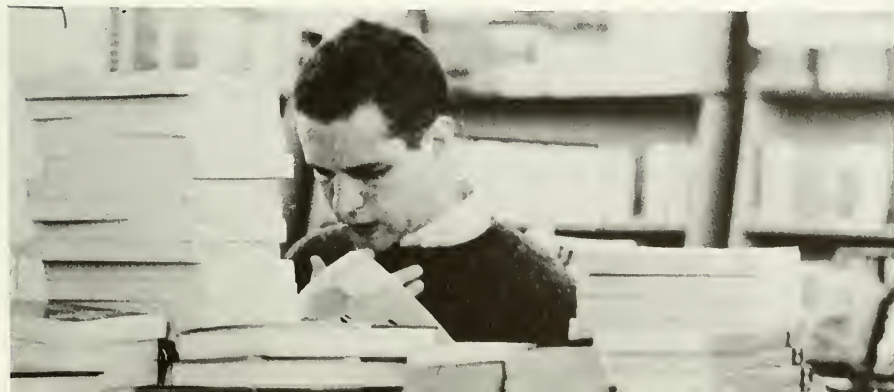
YIDDISH 100. Historical Survey of Yiddish Literature*YIDDISH 120a. Survey of Yiddish Literature of the Twentieth Century**

Open to all students and especially recommended to those who study or intend to study Yiddish language or concentrate in Judaica. Lectures and readings will be in English or (for some poetical texts) in Yiddish with English translation.

Prerequisite: Permission of the instructor.

Mr. Astour

*Not to be given in 1964-65.





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Beverly Hills, California
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Harold Weisberg, B.A., Ph.D.	<i>Dean of the Graduate School, Associate Dean of Faculty and Associate Professor of Philosophy</i>
Eugene C. Black, A.M., Ph.D.	<i>Associate Dean of Faculty and Associate Professor of History</i>

* * * *

Robert H. Abeles, M.S., Ph.D.	<i>Associate Professor of Biochemistry (on the Rosenstiel Foundation)</i>
Rose Abendstern, B.A., M.A.	<i>Lecturer in French</i>
Asher Adler, M.Sc.	<i>Instructor in Physics</i>
Charles M. Affron, B.A., Ph.D.	<i>Assistant Professor of French</i>
Walter E. Albert, M.A., Ph.D.	<i>Assistant Professor of French</i>
Per A. Alin, Ph.D.	<i>Visiting Lecturer in History</i>
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Elliot Baker, M.A., Ph.D.	<i>Adjunct Assistant Professor of Psychology</i>
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Saul Benison, B.A., Ph.D.	<i>Adjunct Professor of History</i>
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Stephan Berko, B.A., Ph.D.	<i>Professor of Physics</i>
David Sandler Berkowitz, A.M., Ph.D.	<i>Professor of History</i>
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Barbara R. Berman, M.A., Ph.D.*	<i>Associate Professor of Economics</i>
Louise Bogan	<i>Jacob Ziskind Visiting Professor of English</i>
Yves Bonnefoy, <i>Licence es-Lettres</i>	<i>Jacob Ziskind Visiting Professor of French</i>
Eugene L. Booth, A.B.	<i>Instructor in Physical Education</i>
Martin Boykan, B.A., M.M.	<i>Assistant Professor of Music and Artist-in-Residence</i>
Paul H. Brainard, M.A., Ph.D.	<i>Associate Professor of Music</i>
Leo Bronstein, Ph.D.	<i>Professor of Fine Arts</i>
Edgar H. Brown, Jr., M.A., Ph.D.	<i>Professor of Mathematics</i>
Sheldon R. Brunswick, B.A., M.S.	<i>Visiting Lecturer in Near Eastern and Judaic Studies</i>
David A. Buchsbaum, A.B., Ph.D.	<i>Professor of Mathematics</i>
Harold L. Burstyn, M.S., Ph.D.	<i>Instructor in History of Science</i>

*On Leave, 1964-65.

**On Leave, Spring Term, 1964-65.

- Frederic W. Bush, B.A., Ph.D.
 Letterio Calapai
 Barbara Charlesworth, M.A., Ph.D.
 Joseph I. Cheskis, A.M., Ph.D.
- Max Chretien, Ph.D.
 James H. Clay, M.A., Ph.D.
 Helen Codere, B.A., Ph.D.
 Jerome Cohen, B.A., M.A.*
 Saul G. Cohen, M.A., Ph.D.**
 Andrée M. Collard, B.A., M.A.
 Lewis A. Coser, Ph.D.
 George L. Cowgill, A.M., Ph.D.
 James V. Cunningham, A.B., Ph.D.
 Alain de Leiris, B.A., Ph.D.
 Stanley Deser, B.S., Ph.D.
 Joseph de Somogyi, D.Sc., Ph.D.
 Peter Diamandopoulos, M.A., Ph.D.
 Paul B. Dorain, B.S., Ph.D.*
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 James E. Duffy, A.M., Ph.D.
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 Robert Evans, Jr., S.B., Ph.D.
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 David L. Falkoff, B.A., Ph.D.
 Gerald D. Fasman, B.Sc., Ph.D.
(Established Investigator of the American Heart Association)
 Kenneth D. Feigenbaum, A.M., Ph.D.
 Gordon A. Fellman, B.A., Ph.D.
 David Hackett Fischer, A.B., Ph.D.
 Emanuel Flumere, B.S., M.Ed.
 Madeline Foley, B.A., M.S.
 Kenneth William Ford, A.B., Ph.D.
 Orrie M. Friedman, B.Sc., Ph.D.
 Lawrence H. Fuchs, B.A., Ph.D.
 Chandler M. Fulton, A.B., Ph.D.
 Joachim E. Gaehde, M.A., Ph.D.
 Stephen J. Gendzier, M.A., Ph.D.
 Martin Gibbs, B.S., Ph.D.
 Donald B. Giddon, D.M.D., Ph.D.
 Mary E. Giffin, M.A., Ph.D.
(Vassar College—Professor Emeritus)
 Creighton Gilbert, B.A., Ph.D.
 Raymond S. Ginger, A.M., Ph.D.
 Howard M. Gitelman, M.S., Ph.D.
(on the Atran Foundation)
 Nahum Norbert Glatzer, Ph.D.
- Instructor in Mediterranean Studies*
Visiting Associate Professor of Fine Arts
Assistant Professor of English
Professor Emeritus of Romance Languages and Literature
Associate Professor of Physics
Assistant Professor of Theatre Arts
Professor of Anthropology
Assistant Professor of History
Helena Rubinstein Professor of Chemistry
Instructor in Spanish
Harry Coplan Professor of Sociology
Assistant Professor of Anthropology
Paul E. Prosswimmer Professor of English
Assistant Professor of Fine Arts
Associate Professor of Physics
Visiting Professor of Mediterranean Studies
Associate Professor of History of Ideas
Associate Professor of Chemistry
Instructor in English
Professor of Spanish
Professor of Biophysics
Visiting Lecturer in French
Adjunct Assistant Professor of Economics
Assistant Professor of English
Professor of Physics
Associate Professor of Biochemistry
Assistant Professor of Psychology
Assistant Professor of Sociology
Assistant Professor of History
Associate Professor of Physical Education
Lecturer in Music and Artist-in-Residence
Professor of Physics
Professor of Chemistry
Professor of American Civilization
Assistant Professor of Biology
Associate Professor of Fine Arts
Assistant Professor of French
Professor of Biology
Adjunct Assistant Professor of Psychology
Visiting Professor of English
Associate Professor of Fine Arts
Associate Professor of History
Assistant Professor of Economics
Michael Tuch Professor of Jewish History

*On Leave, 1964-65.

**On Leave, Spring Term, 1964-65.

Marvin Gold, B.A., Ph.D.	<i>Assistant Professor of Biochemistry</i>
Sidney Golden, B.S., Ph.D.	<i>Henry F. Fischbach Professor of Chemistry</i>
Abraham Goldin, M.A., Ph.D.	<i>Adjunct Professor of Biochemistry</i>
William M. Goldsmith, B.A.	<i>Assistant Professor of Politics</i>
Jack S. Goldstein, M.S., Ph.D.	<i>Associate Professor of Astrophysics</i>
Erwin R. Goodenough, B.A., Ph.D.	<i>Visiting Professor of Hellenistic Studies</i>
Nelson Goodman, B.S., Ph.D.	<i>Harry A. Wolfson Professor of Philosophy</i>
Cyrus H. Gordon, M.A., Ph.D.	<i>Joseph Foster Professor of Near Eastern Studies</i>
Norman K. Gottwald, A.B., Ph.D.	<i>Visiting Lecturer in Biblical Studies</i> (<i>Andover Newton Theological School</i>)
Norman D. Greenwald, M.A., Ph.D.	<i>Lecturer in the Modern Near East</i>
Charles E. Gribble, B.A., A.M.	<i>Instructor in Russian</i>
Peter Grippe*	<i>Professor of Fine Arts</i>
Marcus T. Grisaru, M.A., Ph.D.	<i>Assistant Professor of Physics</i>
Eugene P. Gross, A.M., Ph.D.	<i>Professor of Physics</i>
Allen R. Grossman, M.A., Ph.D.	<i>Assistant Professor of English</i>
Lawrence Grossman, B.A., Ph.D.	<i>Associate Professor of Biochemistry</i> (<i>Career Award, National Institutes of Health</i>)
Ernest Grunwald, B.A., Ph.D.	<i>Professor of Chemistry</i>
Benjamin Halpern, Ph.D.	<i>Associate Professor of Near Eastern Studies</i> (<i>on the Rabbi Abraham Joseph and Leah Factor Foundation</i>)
Joel M. Halpern, A.B., Ph.D.	<i>Associate Professor of Anthropology</i>
L. Davis Hammond, B.A.	<i>Instructor in French</i>
Eugenia Hanfmann, Ph.D.	<i>Professor of Psychology</i>
Anton G. Hardy, Jr., M.A., Ph.D.	<i>Instructor in Psychology</i>
Victor Harris, M.S., Ph.D.	<i>Professor of English</i>
Robert W. Hartman, A.M., Ph.D.	<i>Assistant Professor of Economics</i>
Thomas J. Hegarty, A.B., A.M.	<i>Instructor in History</i>
Steve P. Heims, M.S., Ph.D.	<i>Assistant Professor of Physics</i>
Peter Heller, Ph.D.	<i>Assistant Professor of Physics</i>
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Donald Hindley, M.A., Ph.D.	<i>Assistant Professor of Politics</i>
Milton Hindus, B.A., M.S.	<i>Peter and Elizabeth Wolkenstein</i> <i>Professor of English</i>
Harry A. Hoffner, Jr., M.A., Ph.D.	<i>Assistant Professor of Anatolian Studies</i>
Christoph Hohenemser, B.A., Ph.D.	<i>Instructor in Physics</i>
Thomas C. Hollocher, Jr., B.S., Ph.D.	<i>Assistant Professor of Biochemistry</i>
Benjamin B. Hoover, M.A., Ph.D.	<i>Associate Professor of English</i>
Thalia Phillis Howe, M.A., Ph.D.	<i>Associate Professor of Humanities and Classics</i>
William Lind Hoyt, M.S., Ph.D.*	<i>Associate Professor of Mathematics</i>
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John M. Hughes, B.S.	<i>Assistant Professor of Physical Education</i>
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Robert F. Hutton, B.S., A.M.	<i>Assistant Professor of Chemistry</i>
Kenneth F. Ireland, B.A.	<i>Instructor in Mathematics</i>
William P. Jencks, M.D.	<i>Rosenstiel Professor of Biochemistry</i>
Edgar Nathaniel Johnson, Ph.B., Ph.D.***	<i>Carl and Philip Leff Professor</i> <i>of History</i>

*On Leave, 1964-65.

**On Leave, Fall Term, 1964-65.

***On Leave, Spring Term, 1964-65.

Mary Ellen Jones, B.S., Ph.D.	<i>Associate Professor of Biochemistry (on the Rosenstiel Foundation)</i>
Richard M. Jones, A.B., Ph.D.	<i>Associate Professor of Psychology</i>
Peter C. Jordan, M.S., Ph.D.	<i>Assistant Professor of Chemistry</i>
Lisel K. Judge	<i>Instructor in Physical Education</i>
David Kaplan, A.M., Ph.D.	<i>Assistant Professor of Anthropology</i>
Nathan O. Kaplan, A.B., Ph.D.	<i>Rosenstiel Professor of Biochemistry</i>
Morton Keller, M.A., Ph.D.	<i>Professor of History</i>
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James B. Klee, M.A., Ph.D.	<i>Associate Professor of Psychology</i>
Attila O. Klein, B.A., Ph.D.	<i>Assistant Professor of Biology</i>
Karen W. Klein, M.A., Ph.D.	<i>Instructor in English</i>
Daniel J. Kleitman, A.M., Ph.D.	<i>Assistant Professor of Physics</i>
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Carol G. Konrad, A.B., Ph.D.	<i>Instructor in Biology</i>
Ernst Krenek	<i>Jacob Ziskind Visiting Professor of Music</i>
Louis Kronenberger, Litt.D.	<i>Professor of Theatre Arts</i>
Kenneth Kustin, B.Sc., Ph.D.	<i>Assistant Professor of Chemistry (on the Morris Schapiro Foundation)</i>
Joel Larus, LL.B., Ph.D.	<i>Assistant Professor of Politics</i>
Eugene Lehner	<i>Consultant in Chamber Music</i>
Max Lerner, A.M., Ph.D.**	<i>Max Richter Professor of American Civilization and Institutions</i>
Baruch A. Levine, M.A., Ph.D.	<i>Assistant Professor of Hebrew Literature</i>
Harold I. Levine, M.S., Ph.D.	<i>Associate Professor of Mathematics</i>
Lawrence Levine, M.S., Sc.D.	<i>Professor of Biochemistry (American Cancer Society Professorship)</i>
Alan L. Levitan, M.A., Ph.D.***	<i>Assistant Professor of English</i>
Avigdor Levy, B.A., M.A.	<i>Lecturer in Near Eastern Studies (on the Pincus Glickman Foundation)</i>
Kenneth J. Levy, M.F.A., Ph.D.	<i>Fredric R. Mann Professor of Music</i>
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John M. Lowenstein, B.S., Ph.D.	<i>Associate Professor of Biochemistry</i>
Heinz M. Lubasz, M.A., Ph.D.	<i>Associate Professor of History</i>
Alvin Lucier, B.A., M.F.A.	<i>Instructor in Music and Director of the University Chorus</i>
Joseph S. Lukinsky, B.A., M.H.L.	<i>Visiting Lecturer in Jewish Education</i>
Elizabeth C. Maclean, M.S., Ph.D.	<i>Assistant Professor of Biology and Biochemistry</i>

*On Leave, 1964-65.

**On Leave, Fall Term, 1964-65.

***On Leave, Spring Term, 1964-65.

- Ramsay MacMullen, A.B., Ph.D.*
 Farahe Maloof, A.B., M.D.
 Robert A. Manners, M.A., Ph.D.
 Frank Edward Manuel, A.M., Ph.D.
- Herbert Marcuse, Ph.D.
 Thomas N. Margulis, B.S., Ph.D.
 Abraham H. Maslow, M.A., Ph.D.
 William H. Matheson, M.A., Ph.D.
 Teruhisa Matsusaka, B.Sc., D.Sc.
 John F. Matthews, B.A.
 Carlo Mazzone-Clementi
 Marvin Meyers, M.A., Ph.D.
 Bruce Jerome Mikel, B.A., M.A.
 Norbett Mintz, M.A., Ph.D.
 Ricardo B. Morant, M.A., Ph.D.
 Ruth Schachter Morgenthau, Ph.D.
 William T. Murakami, A.B., Ph.D.
 (American Cancer Faculty Research Award)
- Joseph S. Murphy, M.A., Ph.D.
 David Neiman, M.A., Ph.D.
 (on the Dora Golding Foundation)
- Ulric Neisser, M.A., Ph.D.**
 Anna Catherine Nichols, B.S., M.S.
 Minoru Nishida, Ph.D.
 (Kyoto University)
- Irving Olin, B.S., M.Ed.
 Gjerding Olsen, A.M., Ph.D.
 Richard J. Onorato, A.B., A.M.
 Richard S. Palais, M.A., Ph.D.
 Hugh N. Pendleton, III, M.S., Ph.D.
 Frances S. Perkins, B.S.E., M.Ed.
 Edwin Burr Pettet, A.B., Ph.D.
- Felix A. E. Pirani, M.A., Ph.D.
 (King's College, London)
- Arthur Polonsky
 Robert Otto Preyer, M.A., Ph.D.
 Philip Rahv*
 Arlan B. Ramsay, A.M., Ph.D.
 Harry Rand, M.D.
 Esther Eugenie Rawidowicz, Ph.D.
 Janine Reisman
 Karl M. L. Reisman, A.B.
 Jack Reitzes, B.A., M.A.
 Dock Sang Rim, B.S., Ph.D.*
 Marguerite S. Robinson, B.A.
- Associate Professor of History*
Adjunct Associate Professor of Biochemistry
Professor of Anthropology
Professor of History and Moral Psychology
Professor of Politics and Philosophy
Assistant Professor of Chemistry
Professor of Psychology
Assistant Professor of French
Professor of Mathematics
Associate Professor of Theatre Arts
Visiting Lecturer in Theatre Arts
Harry S. Truman Professor of History
Instructor in German
Assistant Professor of Psychology
Associate Professor of Psychology
Associate Professor of Politics
Assistant Professor of Biochemistry
Assistant Professor of Politics
Associate Professor of Biblical Studies
Associate Professor of Psychology
Assistant Professor of Physical Education
Visiting Associate Professor of Astrophysics
Adjunct Associate Professor of Physical Education
Assistant Professor of Biology
Instructor in English
Associate Professor of Mathematics
Assistant Professor of Physics
Lecturer in Psychology
Professor of Theatre Arts and Director of the Brandeis Theatre
Visiting Professor of Physics
Assistant Professor of Fine Arts
Professor of English
Professor of English
Assistant Professor of Mathematics
Adjunct Professor of Clinical Psychiatry
Assistant Professor of German
Lecturer in French
Instructor in Anthropology
Instructor and Director of Education
Associate Professor of Mathematics
Visiting Lecturer in Anthropology

*On Leave, 1964-65.

**On Leave, Spring Term, 1964-65.

- Romney Robinson, M.A., Ph.D. Associate Professor of Economics
(on the James Henry Yalem Foundation)
- John P. Roche, M.A., Ph.D. Morris Hillquit Professor
of Labor and Social Thought
- Ruth Rosenberg, B.A., M.A. Adjunct Instructor in Judaic Studies
- Myron Rosenblum, A.M., Ph.D. Associate Professor of Chemistry
- Hugo Rossi, M.S., Ph.D. Associate Professor of Mathematics
- Howard M. Sachar, M.A., Ph.D. Assistant Professor of Near Eastern
and Judaic Studies
- Murray Sachs, A.M., Ph.D. Associate Professor of French
(on the B. E. and Régine S. Levy Foundation)
- I. Milton Sacks, M.A., Ph.D.* Associate Professor of Politics
- Benson Saler, M.A., Ph.D. Assistant Professor of Anthropology
- Pierre Samuel, Ph.D. Jacob Ziskind Visiting Professor of Mathematics
- Gerasimos X. Santas, M.A., Ph.D. Assistant Professor of Philosophy
- Gordon Hisashi Sato, B.A., Ph.D. Associate Professor of Biochemistry
(on the Rosenstiel Foundation)
- Jerome A. Schiff, B.A., Ph.D. Associate Professor of Biology
- Marcel Schneeberger, Ph.D. Assistant Professor of Physics and
Research Associate
- Howard J. Schnitzer, B.S., Ph.D.** Assistant Professor of Physics
- Miriam F. Schurin, M.S., Ph.D. Assistant Professor of Biology
- Morris S. Schwartz, M.A., Ph.D. Mortimer Gryzmish Professor
of Human Relations
- Silvan S. Schweber, M.S., Ph.D. Professor of Physics
- John R. Seeley, A.B.* Professor of Sociology
- Robert T. Seeley, S.B., Ph.D. Associate Professor of Mathematics
- Harold Shapero, A.B. Professor of Music
- Evelyn Singer Simha, B.A., M.A.* Assistant Professor of French
- Marianne L. Simmel, A.M., Ph.D. Associate Professor of Psychology
- Mitchell Siporin Professor of Fine Arts
- Philip E. Slater, A.B., Ph.D. Associate Professor of Sociology
- Clyde C. Smith, A.B., M.A. Instructor in Mediterranean Studies
- Bernard Z. Sobel, M.A., Ph.D. Assistant Professor of Sociology
- Frederic T. Sommers, B.A., Ph.D. Associate Professor of Philosophy
- John J. Sommers, B.A., M.A. Assistant Professor of Theatre Arts
- Morris Soodak, M.S., Ph.D. Associate Professor of Biochemistry
- Joel Warren Spiegelman, B.A., M.F.A.** Lecturer in Music
- Michael Spivak, A.B., M.A. Lecturer in Mathematics and Research Associate
- Philip A. St. John, M.S., Ph.D. Assistant Professor of Biology
- Colin Steel, B.Sc., Ph.D. Assistant Professor of Chemistry
- Howard Stein, B.A., M.A. Visiting Lecturer in Theatre Arts
(State University of Iowa)
- J. Peter Stein, B.A., Ph.D. Instructor in Classics
- Maurice R. Stein, B.A., Ph.D. Associate Professor of Sociology
- Michael Steinberg, A.B., M.F.A. Visiting Lecturer in Music
- Robert Stevenson, Ph.D., D.Sc. Associate Professor of Chemistry
- Arnold Strickon, A.M., Ph.D. Assistant Professor of Anthropology

*On Leave, 1964-65.

**On Leave, Spring Term, 1964-65.

- Travis L. Summersgill, M.A., Ph.D. *Visiting Lecturer in English*
(*University of Hawaii*)
- Maurice Sussman, B.S., Ph.D. *Professor of Biology*
Alois Svec, Ph.D. *Lecturer in Mathematics and Research Associate*
Sahl Swarz *Visiting Associate Professor of Fine Arts*
Peter Swiggart, M.A., Ph.D. *Assistant Professor of English*
Marie Syrkin, B.A., M.A. *Associate Professor of Humanities*
Robert Szulkin, A.B., M.A. *Instructor in Russian*
Ralph Tarica, B.A., M.A. *Instructor in French*
Caldwell Titcomb, M.A., Ph.D.* *Associate Professor of Music*
Walter Toman, Ph.D.** *Professor of Psychology*
Thomas R. Tuttle, Jr., M.S., Ph.D. *Assistant Professor of Chemistry*
Abraham L. Udovitch, B.S., M.A. *Assistant Professor of Islamic Studies*
Milton I. Vanger, M.A., Ph.D. *Associate Professor of History*
Alphonse T. Vasquez, B.S., Ph.D. *Lecturer in Mathematics and*
Research Associate
John M. Vickers, M.A., Ph.D. *Assistant Professor of Philosophy*
Helen Van Vunakis, B.A., Ph.D. *Associate Professor of Biochemistry*
(*on a Research Career Award, National Institutes of Health*)
Gerald C. Volpe, M.A., Ph.D. *Assistant Professor of French*
E. V. Walter, M.A., Ph.D.** *Associate Professor of Sociology*
Aileen Ward, M.A., Ph.D. *Associate Professor of English*
Morris Watnick, B.S.S., M.S.S. *Associate Professor of Politics*
Richard S. Weckstein, M.A., Ph.D. *Associate Professor of Economics*
(*on the Carl Marks Foundation*)
Gunther M. Weil, A.B., Ph.D. *Assistant Professor of Psychology*
Irwin Weil, M.A., Ph.D. *Assistant Professor of Russian and Humanities*
Alex Weingrod, M.A., Ph.D. *Assistant Professor of Anthropology*
Robert S. Weiss, M.A., Ph.D. *Associate Professor of Sociology*
John Burt Wight, Ed.M., Ed.D. *Lecturer in English*
Peter J. D. Wiles, M.A.* *Professor of Economics*
Jerome Wodinsky, B.A., Ph.D. *Assistant Professor of Psychology*
Sanford E. Wolf, S.B., M.A. *Assistant Professor of Physics*
Kurt H. Wolff, Ph.D. *Professor of Sociology*
Peter Woll, A.B., Ph.D. *Visiting Associate Professor of Politics*
(*University of California, Los Angeles*)
Luis E. Yglesias, B.A. *Instructor in Spanish*
Dwight Wayne Young, Th.M., Ph.D.*** *Associate Professor of Semitic Languages*
Mumtaz H. Zaidi, M.Sc., Ph.D. *Visiting Assistant Professor of Astrophysics*
(*University of Nebraska*)
Joseph Zelan, B.A., M.A. *Lecturer in Sociology*
Eléonore M. Zimmermann, M.A., Ph.D. *Assistant Professor of French*
Leonard Zion, M.A. *Lecturer in Contemporary Jewish Studies*
Harry Zohn, Ed.M., Ph.D. *Associate Professor of German*
Irving K. Zola, B.A., Ph.D. *Assistant Professor of Sociology*
Edgar Zwilling, M.A., Ph.D. *Professor of Biology*

*On Leave, 1964-65.

**On Leave, Fall Term, 1964-65.

***On Leave, Spring Term, 1964-65.

Hiatt Institute in Israel

Yehezkel Dror, LL.M., S.J.D.

Visiting Lecturer in Political Science

Norman D. Greenwald, M.A., Ph.D.

Visiting Lecturer in Modern Jewish History

and Acting Associate Director of Hiatt Institute for 1964

Michael Gurevitch, Ph.D.

Visiting Lecturer in Israel Social Institutions

Mordechai Kamrat, M.A., Ph.D.

Lecturer in Hebrew Studies

Howard M. Sachar, M.A., Ph.D.

Lecturer in Jewish History

and Director of Hiatt Institute

Awards to Faculty on Leave 1964-1965

Barbara Berman, *Associate Professor of Economics*

Brookings Institute, Washington, D. C.

Peter Grippe, *Professor of Fine Arts*

Guggenheim Fellowship to Italy

James Hendrickson, *Associate Professor of Chemistry*

Guggenheim Fellowship to Imperial College, London

William Lind Hoyt, *Associate Professor of Mathematics*

Institute for Advanced Study, Princeton, New Jersey

Alan Levitan, *Assistant Professor of English*

Exchange Professorship, University of Hawaii

Edgar Lipworth, *Professor of Physics*

Visiting Research Professorship, Columbia University

Ramsay MacMullen, *Associate Professor of History*

Guggenheim Fellowship to Institute for Advanced Study,

Princeton, New Jersey

Dock Sang Rim, *Associate Professor of Mathematics*

University of Pennsylvania

I. Milton Sacks, *Associate Professor of Politics*

Rockefeller Foundation Grant to Southeast Asia

Howard J. Schnitzer, *Assistant Professor of Physics*

Sloan Foundation Fellowship

John R. Seeley, *Professor of Sociology*

Center for Behavioral Study, Palo Alto, California

Evelyn Singer Simha, *Assistant Professor of French*

Danforth Foundation Fellowship

Joel Spiegelman, *Lecturer in Music*

Inter-University Committee on Travel Grants for American-Soviet

Exchange Program

Peter Wiles, *Professor of Economics*

City College of New York

School Councils

Creative Arts

Edwin B. Pettet, *Chairman*; Creighton Gilbert, Kenneth J. Levy.

Humanities

Victor Harris, *Chairman*; Nahum N. Glatzer, Cyrus H. Gordon, Frederic T. Sommers.

Science

Chairman to be announced; Saul G. Cohen, Kenneth W. Ford, Nathan O. Kaplan, Joseph J. Kohn, Morris Soodak, Edgar Zwilling.

Social Science

Romney Robinson, *Chairman*; Raymond S. Ginger, Robert A. Manners, Marvin Meyers, Ricardo B. Morant, John P. Roche, Morris S. Schwartz, Arnold Strickon, Richard S. Weckstein.

GRADUATE SCHOOL OF ARTS AND SCIENCES

Harold Weisberg, *Chairman*; Saul G. Cohen, Kenneth W. Ford, Nahum N. Glatzer, Cyrus H. Gordon, Victor Harris, Nathan O. Kaplan, Joseph J. Kohn, Kenneth J. Levy, Leonard W. Levy, Robert A. Manners, Herbert Marcuse, Ricardo B. Morant, John P. Roche, Charles I. Schottland, Morris S. Schwartz, Frederic T. Sommers, Edgar Zwilling.

Faculty Committees

Educational Policy

Leonard W. Levy, *Chairman*; Eugene C. Black, Lewis A. Coser, Stephen J. Gendzier, Creighton Gilbert, Allen Grossman, Arnold Gurin, Victor Harris, Kermit C. Morrissey, Edwin B. Pettet, Romney Robinson, Charles I. Schottland, Maurice Sussman, Richard S. Weckstein, Harold Weisberg.

Administrative

Kermit C. Morrissey, *Chairman*; Mathew R. Sgan, *Secretary*; Peter Diamandopoulos, Philip J. Driscoll, Charles W. Duhig, Milton Hindus, Albert Kelner, Robert L. Koff, Joseph S. Murphy, Irwin Weil, John B. Wight, Leonard Zion. *Ex-officio*: Eugene C. Black, Leonard W. Levy, Harold Weisberg.

Faculty Senate

Paul H. Brainard, Edgar H. Brown, Jr., David A. Buchsbaum, Saul G. Cohen, James E. Duffy, Gerald D. Fasman, Howard E. Freeman, Lawrence H. Fuchs, Victor Harris, Benjamin B. Hoover, Everett C. Hughes, Denah L. Lida, Robert A. Manners, Herbert Marcuse, Ulric Neisser, Edwin B. Pettet, Romney Robinson, John P. Roche, Silvan S. Schweber, Mitchell Siporin, Edgar Zwilling. Four additional members to be elected at large in the Fall.

Research Associates and Fellows

Hilary Ashe, Ph.D.

Melvin J. Averno, Ph.D.

Ronald J. Baumgarten, Ph.D.

Ruth Ben-Ishai, Ph.D.

Terry L. Bogard, Ph.D.

John B. Boyling, Ph.D.

Vicenzo Buonassisi, M.D.

Jiban K. Chakrabarti, Ph.D.

Oscar Chilson, Ph.D.

Joseph L. Cohen, M.D.

Hayden Coon, Ph.D.

Postdoctoral Fellow in Biochemistry

Postdoctoral Fellow (Trainee) in Biology

Research Fellow in Chemistry

Senior Research Fellow in Biochemistry

Postdoctoral Fellow in Chemistry

Research Associate in Physics

Postdoctoral Fellow in Biochemistry

Research Associate in Chemistry

National Institutes of Health Fellow in Biochemistry

Postdoctoral Fellow in Biochemistry

Research Associate in Biology

Leonard Corman, D.M.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Lucian Cuprak, D.M.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Samuel J. Davidson, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Gareth M. Davies, Ph.D.	<i>Postdoctoral Fellow in Chemistry</i>
Allan D. Dingle, Ph.D.	<i>Postdoctoral Fellow (Trainee) in Biology</i>
Giovanni Di Sabato, M.D.	<i>American Cancer Society Scholar in Biochemistry</i>
Robert Doyle, Ph.D.	<i>Research Associate in Physics</i>
Charles Drake, A.B., B.D.	<i>Research Associate in Psychology</i>
Leon M. Edelstein, M.D.	<i>American Cancer Society Postdoctoral Fellow in Biochemistry</i>
Hans M. Eppenberger, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Audrey E. Evans, M.D.	<i>National Institutes of Health Fellow in Biochemistry</i>
Robert G. Everson, Ph.D.	<i>Research Associate in Biology</i>
Ronald H. Felton, Ph.D.	<i>Postdoctoral Fellow in Chemistry</i>
Thomas P. Fondy, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Jean A. Frank, Ph.D.	<i>Research Associate in Chemistry</i>
Ira Gilbert, Ph.D.	<i>Research Associate in Physics</i>
Theodore Goodfriend, M.D.	<i>Helen Hay Whitney Foundation Research Fellow in Biochemistry</i>
James B. Griffin, M.A.	<i>Postdoctoral Fellow in Biochemistry</i>
Jon E. Haebig, Ph.D.	<i>Research Associate in Chemistry</i>
Daniel Hauser, Dr.Sc.	<i>Postdoctoral Fellow in Chemistry</i>
Charles F. Howard, Jr., Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Joseph W. Inselburg, M.D.	<i>Postdoctoral Fellow (Trainee) in Biology</i>
Roland Kallen, M.D.	<i>National Institutes of Health Fellow in Biochemistry</i>
Keitaro Kato, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Jay B. Kopelman, B.S.	<i>Research Associate in Physics</i>
Susan Leeman, Ph.D.	<i>National Institutes of Health Research Career Development Awardee in Biochemistry</i>
Sherwin S. Lehrer, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Edward Lerner, Ph.D.	<i>Senior Research Associate in Physics</i>
Gustav Lienhard, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Fang-Jen Lin, M.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Robert H. Liss, Ph.D.	<i>Postdoctoral Fellow (Trainee) in Biology</i>
Alma L. Luzzati, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Iain Maclean, Ph.D.	<i>Postdoctoral Fellow in Chemistry</i>
P. M. Mathews, Ph.D.	<i>Senior Research Associate in Physics</i>
Robert Mermelstein, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Behzad Mohit, M.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Yochanan Muffs, Ph.D.	<i>Research Fellow in Biblical Studies</i>
John A. Mullins, Ph.D.	<i>Research Associate in Chemistry</i>
William H. Murphey, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Vicente L. Orce, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Michael Ottolenghi, Ph.D.	<i>Research Associate in Chemistry</i>
Gerald J. Papenmeier, Ph.D.	<i>Research Fellow in Chemistry</i>
Henry A. S. Payne, Ph.D.	<i>Research Fellow in Chemistry</i>
Thomas E. Ragland, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
Jessica E. Reimann, Ph.D.	<i>Postdoctoral Fellow in Biochemistry</i>
DeWayne Roberts, Ph.D.	<i>Research Associate in Biochemistry</i>

Raquel Rotman-Sussman, Ph.D.

Madhuri Roy, Ph.D.

Mikolaj Rozwadowski, Ph.D.

Anna Ruffilli, Ph.D.

George K. Russell, Ph.D.

Stanley N. Salthe, Ph.D.

Schimon Schichor, Ph.D.

Charlotte G. Schwartz, M.A.

Edna Seaman, Ph.D.

Cynthia K. Silbert, M.D.

Richard Silverstein, Ph.D.

Mark Spivak, Ph.D.

Charles E. Stenard, M.A.

Francis E. Stolzenbach

Norbert I. Swislocki, Ph.D.

Bronislava Szorenyi, Ph.D.

Shu-Jen Tao, Ph.D.

Jerome Targovnik, M.D.

Ralph Thomas, Ph.D.

William D. Voiers, Ph.D.

Martha T. Wang, M.A.

Frederick Wiseman, LL.B.

Yoshihiro Yasumura, M.D.

Boleslaw J. Zagalak, D.Sc.

Research Associate in Biology

Research Associate in Biology

Research Associate in Physics

Postdoctoral Fellow in Biochemistry

Research Associate in Biology

American Cancer Society Postdoctoral Fellow in

Biochemistry

Research Fellow in Chemistry

Research Associate in Sociology

Postdoctoral Fellow in Biochemistry

Postdoctoral Fellow in Biochemistry

Postdoctoral Fellow in Biochemistry

Research Associate in Sociology

Research Associate in Mathematics

Senior Research Associate in Biochemistry

Postdoctoral Fellow in Biochemistry

Senior Research Associate in Biochemistry

Postdoctoral Fellow in Physics

Postdoctoral Fellow in Biochemistry

Postdoctoral Fellow in Chemistry

Research Associate in Psychology

Postdoctoral Fellow in Chemistry

Research Associate in Sociology

Postdoctoral Fellow in Biochemistry

Research Associate in Biochemistry

Administration of the University

Abram Leon Sachar, Ph.D.

President

Administrative Council

Clarence Q. Berger, A.M.

Dean of University Planning and Development

Eugene C. Black, Ph.D.

Associate Dean of Faculty of Arts and Sciences

Philip J. Driscoll, A.M.

Dean of Admissions

Leonard W. Levy, Ph.D.

Dean of Faculty of Arts and Sciences

Kermit C. Morrissey, A.B.

Dean of Students

Charles I. Schottland, A.B.

*Dean of Heller Graduate School for Advanced Studies
in Social Welfare*

Harold Weisberg, Ph.D.

*Dean of Graduate School of Arts and Sciences and
Associate Dean of Faculty of Arts and Sciences*

Sumner J. Abrams, P.E.

Director of Plant Operations

Lester G. Loomis, M.B.A.

Director of University Finance

David L. Rolbein, M.S.

Director of Business Administration

President's Office

Abram Leon Sachar, Ph.D.

President

Claire L. Freeman, Ed.M.

Executive Secretary to the President

Janice Edgar

Secretary to the President

Helena Fitzpatrick

Resources Secretary to the President

Lawrence J. Kane '57, A.B.

Assistant to the President

Robert F. Kelley '57, A.B.

Director of Alumni Relations

Emanuel M. Gilbert, B.S.

Special Assistant to the President

C. Ruggles Smith, LL.D.

Special Assistant for Legal Counsel

Mrs. Milton Steinberg, A.B.

University Relations for New York City

Marylou Buckley, B.A.

Special Assistant

University Planning and Development

Clarence Q. Berger, A.M.

Dean

Mary A. Scipione

Executive Secretary to the Dean

Emanuel Goldberg, M.A.

Associate Director

Julius M. Rogoff, M.D.

Consultant for Development of Medical Education

ADULT EDUCATION

Helen DuPont, B.A.

Director

MORSE COMMUNICATION RESEARCH CENTER

Louis G. Cowan, Ph.B.

Director

Lloyd Meeker, B.S.

Associate Director

Sydney Ellis Sowles, A.B.

Research Associate

Nancy Burrington

Administrative Assistant

POSES INSTITUTE OF FINE ARTS

Sam Hunter, A.B.

Director

Margaret Canty

Secretary to the Director

Thomas H. Garver, B.A.

Assistant Director

PUBLIC AFFAIRS

Richard Gillman

Director

Barbara Smith

Secretary to the Director

Henry A. Selib, B.S.

Publications Director

Jeffrey A. Osoff, M.S.
 Faryl Finn, B.S.
 Harvey Siders, B.S.
 Ralph Norman

Director, News Bureau
News Writer
Radio-TV Writer
Photographer

ROSE ART MUSEUM
 Sam Hunter, A.B.

Thomas H. Garver, B.A.
 Garth Henzler

Director
Assistant Director
Registrar

SPECIAL EVENTS
 Esther K. Schroeder

Director

SUMMER INSTITUTE FOR ADULTS
 Harold Weisberg, Ph.D.

Director

BOARD OF TRUSTEES
 Eugenia Noussee

Executive Secretary

Faculty of Arts and Sciences

Leonard W. Levy, Ph.D.
 Gertrude Carnovsky
 Eugene C. Black, Ph.D.
 *I. Milton Sacks, Ph.D.
 Harold Weisberg, Ph.D.

Dean
Assistant to the Dean
Associate Dean
Associate Dean
Associate Dean

GRADUATE SCHOOL
 Harold Weisberg, Ph.D.
 Dorothy Roach
 Philip A. St. John, Ph.D.
 M. Catherine Butler, A.M.

Dean
Executive Secretary to the Dean
Assistant to the Dean
Assistant to the Dean

HIATT INSTITUTE IN ISRAEL
 Howard M. Sachar, Ph.D.
 Norman Greenwald, Ph.D.
 Menorah Lebowitz, M.A.

Director
Acting Director
Director of Student Activities

LEMBERG NURSERY SCHOOL
 Frances Perkins, M.Ed.
 Nancy Despres, M.S.
 *Mary Lincoln, B.A.

Director
Teacher
Teacher

LIBRARY
 Louis Kronenberger, Litt.D.
 Louis Schreiber, B.S.L.S.
 Harry N. Tarlin, M.S. in L.S.
 M. Alena Walcott, M.S.
 Harriet Menaker, B.A.
 Ivon B. Mills, B.S.L.S.
 John P. Adams, M.S.L.S.
 Eli Schleiffer, M.S.L.S., M.A.
 Rosalie Archer
 Leon Levine, M.A.
 William Borodacz, B.L.S., Mag. jur.

Jacob and Bertha Goldfarb Librarian
Director of Administrative Services
Associate Director
Head Cataloger
Acquisitions Assistant
Reference Librarian
Reference Assistant
Reference Assistant
Circulation
Reserve Assistant
Cataloger

*On Leave, 1964-65.

Edith Capon, B.L.S.	<i>Cataloger</i>
Ingrid S. Langvik, Cert. in L.S.	<i>Cataloger</i>
Laura W. Silley, A.B., B.L.S.	<i>Serials Cataloger</i>
Sheldon R. Brunswick, M.H.L., M.S.L.S.	<i>Semitics Librarian</i>
Joanne Inglis, B.S.	<i>Science Circulation Librarian</i>
Emilia Lange	<i>Exhibits Librarian</i>
Howard F. Lewis	<i>Audio Visual Services</i>

FINE ARTS SLIDES LIBRARY

Eunice Lebowitz, M.A.	<i>Director</i>
-----------------------	-----------------

LOWN INSTITUTE OF ADVANCED JUDAIC STUDIES

Alexander Altmann, Ph.D.	<i>Director</i>
--------------------------	-----------------

LOWN INSTITUTE FOR CONTEMPORARY JEWISH AFFAIRS

Howard M. Sachar, Ph.D.	<i>Director</i>
-------------------------	-----------------

PSYCHOLOGICAL COUNSELING CENTER

Eugenia Hanfmann, Ph.D.	<i>Director</i>
Stanley S. Kanter, M.D.	<i>Psychiatric Consultant</i>
Elliot Baker, Ph.D.	<i>Counselor</i>
Sarah Evan, M.S.W.	<i>Counselor</i>
Anton Hardy, Ph.D.	<i>Counselor</i>
Philip M. Helfaer, M.A.	<i>Counselor</i>
Richard M. Jones, Ph.D.	<i>Counselor</i>
Esther Osborne, A.M.	<i>Counselor</i>

Visiting Committees: Grete L. Bibring, M.D.

George E. Gardner, M.D.

SCIENCES

(To Be Announced)	<i>Dean</i>
-------------------	-------------

Jean Tooter	<i>Executive Secretary to the Dean</i>
-------------	--

Humphrey McCarthy, Jr.	<i>Manager of Laboratory Supplies and Services</i>
------------------------	--

Office of Dean of Students

Kermit C. Morrissey, A.B.	<i>Dean</i>
---------------------------	-------------

Ellena P. Kohler	<i>Executive Secretary to the Dean</i>
------------------	--

Leonard Zion, M.A.	<i>Associate Dean for Student Affairs</i>
--------------------	---

Mathew Sgan, Ph.D.	<i>Assistant to the Dean</i>
--------------------	------------------------------

Phyllis C. Silverman, M.A.	<i>Assistant to the Dean</i>
----------------------------	------------------------------

Nettie Weiss	<i>Administrative Assistant to the Dean</i>
--------------	---

Vivian L. White	<i>Administrative Assistant to the Dean</i>
-----------------	---

Pierre Gonon, A.M.	<i>Director of Career Planning</i>
--------------------	------------------------------------

John Rich '58, A.B.	<i>Assistant Director</i>
---------------------	---------------------------

ATHLETICS

Irving Olin, M.A.	<i>Director of Physical Education and Athletics</i>
-------------------	---

Rose Kenney	<i>Executive Secretary</i>
-------------	----------------------------

Emanuel A. Flumere, M.Ed.	<i>Associate Director of Physical Education and Athletics</i>
---------------------------	---

Anna Catherine Nichols, M.S.	<i>Director, Women's Athletics</i>
------------------------------	------------------------------------

John M. Hughes, B.S.	<i>Physical Education Instructor</i>
----------------------	--------------------------------------

Lisel Judge	<i>Physical Education Instructor</i>
-------------	--------------------------------------

Eugene L. Booth, A.B.	<i>Assistant Basketball Coach</i>
-----------------------	-----------------------------------

William Hoblitzell
 Judith Jacobs
 Charles Smith
 Martin Martinian, M.Ed.
 Clifford Sundberg

Tennis Coach
Dance Director
Wrestling Coach
Fencing Coach
Business Manager

HEALTH OFFICE

Robert J. Cataldo, M.D.
 Florentino P. Pina, M.D.
 Arnold L. Abrams, M.D.
 Ralph Mankowich, M.D., F.A.C.S.
 William A. Richards, M.D.
 Henry E. Simmons, M.D.

Medical Director
Associate Medical Director
Psychiatrist
Surgeon
Physician
Physician

REGISTRAR

Charles Warner Duhig, A.M.
 Jennie B. Shusterman

Registrar
Administrative Assistant

WIEN INTERNATIONAL SCHOLARSHIP PROGRAM

Kermit C. Morrissey, B.A.
 Selma C. Finstein, M.Ed.

Acting Director
Assistant to the Director

CHAPLAINS

(To Be Announced)
 Paul Lee, Ph.D.
 (To Be Announced)

Brandeis Newman Club
Brandeis Student Christian Association
Brandeis B'nai B'rith Hillel Foundation

Admissions

Philip J. Driscoll, A.M.
 Margaret Ganley
 Elisabeth Thomas, A.B.
 Mrs. H. Kenneth Fish, A.M.
 Mrs. Robert D. Hartshorne, A.B.
 Mrs. Helen K. Kass, A.B.

Dean
Executive Secretary to the Dean
Assistant Director
Admissions Counselor
Admissions Counselor
Admissions Counselor

Florence Heller Graduate School For Advanced Studies in Social Welfare

Charles I. Schottland, A.B.
 Deeda Wharton
 James R. Smith, B.A.

Dean
Executive Secretary to the Dean
Administrative Assistant to the Dean

University Finance Office

Lester G. Loomis, M.B.A.
 Phyllis Arico
 Charles S. Woodbury, B.S., C.P.A.
 Helen Richelson
 Laurence Higgins, M.B.A., C.P.A.
 Beverly L. Fanning
 Emanuel Howard, B.B.A.
 Keitha H. Anderson
 Constance D. Prendergast
 James M. McNamara

Director
Executive Secretary to the Director
Chief Accountant & Research Fiscal Officer
Executive Secretary
Assistant to Chief Accountant
Assistant to Chief Accountant
Purchasing Agent
Personnel Officer
Assistant to Personnel Officer
Manager, Accounts Office

Business Administration

David L. Rolbein, M.S.
 Marie K. Collins
 Norman R. Grimm, A.B.
 Dorothy Merrill
 Udo Depril
 Margaret Thomas

Director
Executive Secretary to the Director
Manager, Dining Services
Service Bureau Supervisor
Co-Manager, Book Store
Co-Manager, Book Store

Plant Operations

Sumner J. Abrams, P.E.
 Dorothy L. Dennis
 Joseph M. Maher, Jr.
 J. Walter Mahoney
 John Sampson
 Nicholas Sottile
 Leo Weiss
 Sam Winer
 Walter Carlson
 John Foti, P.E.

Director
Executive Secretary to the Director
Assistant to the Director
Supervisor, Academic Buildings
Supervisor, Residence Halls
Head Groundsman
Chief Engineer, Boiler Plant
Chief of Security
Construction Coordinator
Construction Coordinator

University Resources

Clarence Q. Berger, A.M.
 Mary A. Scipione

Dean
Executive Secretary to the Dean

NATIONAL

Robert H. Golden, B.A.
 (To Be Announced)
 Shirley M. Wickman
 Hyam I. Korin, M.A.
 Daniel I. Ross, B.A.

Director of Operations
Director, Special Programs
Scholarship Secretary
National Consultant
Director of Major Gifts

REGIONAL

Hyam I. Korin, M.A.
 Josef Perlberg, B.S.
 Robert Kritz
 Sydney D. Berzoff, B.S.
 Mrs. Barbara Schaffer
 Ben Sklar
 Gary Bloom, B.A.
 Herbert A. Wiesenthal
 Herbert A. Goldschmidt, LL.B.
 Peter Tagger, M.A.
 Jack E. Wolfsohn, B.A.

Senior Regional Director, East and Mid-Atlantic
Assistant Regional Director
Assistant to the Director
Senior Regional Director, New York City
Assistant Regional Director
Assistant Regional Director
Regional Representative
Executive Secretary
Senior Regional Director, Midwest
Senior Regional Director, West Coast
Senior Regional Director, East Central

National Women's Committee

Emanuel M. Gilbert, B.S.
 Charlotte Warshaw
 Frances Reiss, LL.B.

Executive Director
Assistant Director
Field Director, New York-New Jersey Region

Administrative Personnel

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Admission to Graduate School:

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Social Welfare:

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Summer Institute:

DIRECTOR OF SUMMER INSTITUTE

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DEAN OF ADMISSIONS

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DEAN OF UNIVERSITY RESOURCES

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